ERIC Document Resume	See Instruction Sheet	DATE OF RESUME 9/19/65	DATE RECEIVED

A. PUBLICATION DATA

1. ERIC NUMBER	2. ORIGINATOR CONTROL NO(S).	3. IDENTIFICATION NO.	DO NOT WRITE IN SPACE BELOW
ED002419	N.A.	CR-2321	

4. AUTHOR(S): Green, Robert Lee and others

MICROFILM COPY AVAILABLE YES ☒ NO ☐

5. TITLE OF DOCUMENT ABSTRACTED: The Educational Status of Children in a District Without Public Schools

COPYRIGHT GRANTED YES ☐ NO ☒

COPYRIGHT RELEASE FILED YES ☐ NO ☐

6. PUBLICATION TITLE: N.A.

TYPE OF REPORT
- PROPOSAL ☐
- IN-PROGRESS ☒
- FINAL ☐
- FOLLOW-UP ☐

7. EDITOR(S): N.A.

8. PLACE OF ORIGIN
ORG. Michigan State University
ST. East Lansing, Mich.
CITY, STATE
TELE. EXT.
INST/LOC CODE

9. PUBLISHER OR SOURCE Cooperative Research Program, Office of Education, Department of Health, Education, and Welfare, Wash., D.C.

OTHER ERIC REFERENCES:

ERIC SATELLITE CODE

10. VOL.	11. PAGES	12. MO./YR.	13. TOTAL PF.
N.A.	N.A.	1964	305

B. INDEXING DATA

14. SUBJECT AREA

15. TYPE OF ENDEAVOR Report

16. INDEXING TERMS (6-12)	achievement	personal characteristics	
public schools	aspiration	measurement	Prince Edward County
Negro	community relations	critical age period	Virginia
intelligence	educationally disadvantaged	attitudes	group membership

17. ABSTRACT (MAX. 250 WORDS)

The major objective of the study was to determine the general effects of closed public schools on the sociological environment of a Negro population. A secondary objective was to explore those factors which result from educational and social deprivation. Extensive background information was acquired on both the adult and non-adult Negro members of the community. The information was integrated with subsequent interview and test responses.

Major findings were that children's academic achievement was severely retarded, the intelligence scores of children were depressed from 15 to 30 points, communication between Negroes and whites was reduced to a minimal level, short-term remedial programs were partially effective but not adequate substitutes for continued education, and interim schooling was related to children's low occupational and educational aspiration level.

The permanence of effects on achievement and I.Q. should be investigated, with particular observation of effects of deprivation during early school years. Other permanent effects to be studied should include reading-readiness, creativity, and self-concept. An appendix is included.

ERIC No.

18. SOURCE OF ABSTRACT

C. FUNDING DATA

19. SUPPORTING ORGANIZATION	20. DIVISION OR DEPT.	21. CONTRACT NO.
		PROJECT NO.
	22. TOTAL COST OF PROJECT	
	23. DURATION OR PROJECT	U.S. Department of Health, Education, and Welfare Office of Education

Form 1

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education
This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official Office of Education position or policy.

ED 002419

The Educational Status of Children
in a
District Without Public Schools

Cooperative Research Project
No. 2321

Robert Lee Green
Louis J. Hofmann
Richard J. Morse
Marilyn E. Hayes
Robert F. Morgan

Bureau of Educational Research
College of Education
Michigan State University

1964

The research reported herein was supported by the
Cooperative Research Program of the Office of Education
United States Department of Health, Education, and Welfare

ED002419

Acknowledgements

In order to recognize Louis Hofmann, Richard Morse, Marilyn Hayes, and Robert Morgan for their work in the project, they join the Principal Investigator as authors in this report. All four played a significant role in the analysis of the data and in the preparation of the final report.

A number of students and other individuals played an important role in tabulating data and typing the report. Among these are Miss Sharon Jacobs, Miss Verna Held, and Mr. Bruce Marcucci. Mrs. Sharon Anthes, especially, assisted us greatly in the many clerical and secretarial details throughout the project.

Dr. J. Kenneth Morland, of Randolph-Macon Womens College, was especially helpful in both phases of the research in which he served as a sociological consultant to the project.

Dr. Wilbur Brookover, of Michigan State University, lent his assistance in the field work and also guided the preparation of the questionnaires used in the research.

Dr. David Krathwohl, Dr. Byron Van Roekel, and Dr. Edgar Schuler, of Michigan State University, gave helpful advice as consultants to the project.

Dr. Wallace Kennedy, of Florida State University, and Mrs. Barbara Nixon, of the University of North Carolina, aided in the administration of the individual and group tests.

We also wish to acknowledge Dr. Alice Scates of the United States Office of Education for her encouragement and advice throughout all phases of the project.

Mr. William Vanden Heuvel, of the United States Department of Justice, also lent valuable assistance to the project.

Mr. Edward Peeples, of the Medical College of Virginia, was helpful in providing background information pertinent to the school situation in Prince Edward County.

A special note of thanks is also due to individuals in Prince Edward County without whose time and efforts this project could not have been completed; namely, Reverend L. Francis Griffin, Mrs. Nathaniel Miller, and Mr. Arthur Dudley. We especially appreciate the assistance and cooperation of the Negro parents and children of Prince Edward County.

Although assisted by the above individuals, the Principal Investigator assumes the responsibility for any errors occurring in the final report.

RLG

TABLE OF CONTENTS

Page

ACKNOWLEDGEMENTS iii

LIST OF TABLES ix

LIST OF FIGURES xv

LIST OF APPENDICES xvii

Chapter

I. THE PROBLEM AND OBJECTIVES OF THE STUDY 1

Major Objectives of the Study 6

II. RELATED RESEARCH 9

Section 1: Intelligence and Schooling 10

Personal Characteristics 11

Context Characteristics 13

Measurement Characteristics 15

Studies Cited 18

Section 2: Achievement and Schooling 36

Personal Characteristics 37

Context Characteristics 38

Studies Cited 40

Section 3: Cognitive Deprivation 47

Personal Characteristics 47

Critical Age Period 48

Perceptual Deprivation Experiments in the Laboratory 48

Studies Cited 50

Chapter		Page
II.	RELATED RESEARCH--Continued.	
	Section 4: Aspirations, Attitudes, and Group Membership	54
	Factors Influencing Occupational and Educational Aspirations	55
	Values and Attitudes, Morale, and Social Disorganization Among Negroes	70
	Summary	78
	References	79
III.	PROCEDURE	85
	Experimental Design	85
	Population and Sample	85
	Instrumentation	86
	Data Collection	88
	Data Analysis	89
	Procedural Limitations and Observations	90
IV.	ANALYSES OF THE DATA AND FINDINGS	96
	Analysis of Adults in the Community	96
	Departure from the Community	96
	Community Compensatory Activities	100
	Winter Training Centers	101
	Summer Crash Programs	103
	Parental Activities with Children	105
	Inter-Racial Communication	111
	Traditional Negro-White Relations	112
	Lack of Communication Indicated by The Placing of Blame for the School Closing	112

Chapter Page

IV. ANALYSES OF THE DATA AND FINDINGS--Continued.

Methods for Re-Opening the Schools 120

Direct Contacts of Whites and Negroes 120

Demonstrations and Other Open Protests by Negroes 122

Analysis of Children in the Community 124

Summary 130

Demographic Characteristics of Residents and Non-Residents 131

Formal Education 132

Grade Placement in 1959 135

Informal Training 139

Present Activities 142

Family Characteristics of Non-Resident Children 144

Summary 148

Effects of Informal Programs 149

Effects of Programs on Younger Students 150

The Informal Program Effect on Older Students 155

Discussion 157

Conclusions 157

School Experience and Self-Concept of Ability 158

Summary 164

Methods and Procedures 166

Results 168

Summary 175

Chapter | Page

IV. ANALYSES OF THE DATA AND FINDINGS--Continued.

The Identification Process: Age, Sex, and Education 176

Results 177

Parental and Non-Parental Family Figures 178

Summary 186

Patterns of Delinquency 187

Experiences of Children Educated Out of the County 192

Schooling and General Achievement 203

Stanford Achievement Test Results 203

Paragraph and Word Meaning Analysis 205

Summary 218

Reading Achievement of Older Children . . . 220

Time Telling Abilities 223

Summary 227

Education and Intelligence 228

Procedure 229

Results--Stanford-Binet 230

Metropolitan Readiness Test 238

California Test of Mental Maturity 241

Summary and Implications 243

V. CONCLUSIONS AND IMPLICATIONS 246

Educational and Psychological Testing 246

Socialization Processes and Social Action 249

APPENDIX 258

LIST OF TABLES

Table		Page
2.1	Mean and Variability of the I.Q.'s of Applicants to the Philips Industrial Training School at Eindhoven, Holland, for the Years 1938-1950	24
3.1	Tests Used in Prince Edward County Testing	87
4.1	Percentage of Sample Attending the Winter Training Centers (N = 363*)	103
4.2	Percentage of Sample Attending the Summer Crash Programs (N = 366*)	105
4.3	Methods in Which Negro Families Attempted to Teach Subject Matter to their Children	106
4.4	Subjects Taught by Parents of Prince Edward County Negro Children (N = 71)	107
4.5	Methods Which Parents Used to Promote Appropriate Social Behavior	108
4.6	Responses of Negro Parents in Prince Edward County, Virginia, in June, 1963, to the Question: "In your opinion, who was to blame for the closing of schools?"	113
4.7	Responses of Negro Parents in Prince Edward County, Virginia, in June, 1963, to the Question: "How concerned do you think most whites in the County are that Negro children are not going to school?"	116
4.8	Responses of Negro Parents in Prince Edward County, Virginia, in June, 1963, to the Question: "How do you think the schools can be opened again?"	120
4.9	Parental Magazine Subscriptions and School Attendance Outside of County	125
4.10	Parental Newspaper Subscriptions and School Attendance Outside of County	125

Table Page

4.11 Parental Membership in Clubs or Lodges and School Attendance Outside of County 126

4.12 Socio-Economic Ratings of Fathers' Occupations and School Attendance Outside of County 127

4.13 Parental Educational Aspirations for Children and School Attendance Outside of County 127

4.14 Parental Occupational Aspirations for Children and School Attendance Outside of County 128

4.15 Educational Levels of Fathers and School Attendance Outside of County 129

4.16 Educational Levels of Mothers and School Attendance Outside of County 129

4.17 Years of Schooling From 1959-1963 133

4.18 1959 Grade Placement of RESIDENT Students 137

4.19 1959 Grade Placement of NON-RESIDENT Students 138

4.20 Winter Training Center Attendance of Prince Edward County Children 140

4.21 Summer Crash Program Attendance of Prince Edward County Children 141

4.22 Current Activities of Prince Edward County Children . . . 143

4.23 Occupations of Heads of Households of RESIDENT and NON-RESIDENT Children 145

4.24 Educational Levels of Heads of Households of RESIDENT and NON-RESIDENT Students 147

4.25 Responses of Heads of Households Regarding the Importance of Education 148

4.26 F Ratios for Metropolitan Readiness Test Subtests 150

4.27 Means and Standard Deviations of Megropolitan Readiness Test Subtest Scores for Children Attending Summer and Winter Programs 151

4.28 Comparisons of Total Readiness Scores of Six- and Ten-Year-Old Children Classified by Summer and Winter Programs 152

Table Page

4.29 F Ratios for Attendance at Informal Programs for Children Ages 11-17 155

4.30 Means and Standard Deviations of Stanford Achievement Grade Equivalent Scores of Prince Edward County Children Classified by Their Informal Program Attendance 156

4.31 Self-Conceptions of Academic Abilities--Prince Edward County Compared to the Other County 160

4.32 Differences by Grade in Self-Conceptions for Other County 161

4.33 Present and Future Self-Concepts for Both Virginia Counties 162

4.34 Self-Conceptions of Academic Abilities--Michigan Students Compared to Students of Prince Edward County and Other County 163

4.35 Relation of School Attendance Outside of Prince Edward County to Educational Aspirations 168

4.36 Relation of School Attendance Outside of Prince Edward County to Occupational Aspirations 169

4.37 Relation of Educational Aspirations to Working Outside of the Home and Not Attending School, and Attending School and Not Working Outside of the Home 171

4.38 Relation of Levels of Occupational Aspiration to Levels of Educational Aspiration 172

4.39 Relation of Educational Aspirations to Rural-Urban Residence 173

4.40 Relation of Occupational Aspirations to Rural-Urban Residence 174

4.41 First, Second and Third Choices of "Admired Figures" by Prince Edward County Negro Children 178

Table Page

4.42 First, Second, and Third Choices for Parental and Other Family Figures of Children in Two Age Groups 179

4.43 Sex Differences in Choice of Parental and Non-Parental Family Figures 179

4.44 First, Second, and Third Choices for Parental and Other Family Figures of the EDUCATION and NO EDUCATION Groups 180

4.45 Crime and Delinquency Among Negro Youth In Prince Edward County From 1957 to 1963 189

4.46 Mean Grade Equivalent Stanford Achievement Subtest Scores Estimated from the Regression Equations for Three Educational Classifications at Two Age Levels 214

4.47 Comparisons of K Scores of NO EDUCATION, EDUCATION, OTHER COUNTY Samples With Performance of Selected Norm Groups at Various Grade Levels 218

4.48 Means and Standard Deviations of Iowa Silent Reading Test Subtest Grade Equivalent Scores for Prince Edward County EDUCATION and NO EDUCATION Groups (14- to 16-Year-Olds) and OTHER COUNTY Seventh Graders 221

4.49 "t" Ratios for Subtest Comparisons of NO EDUCATION, EDUCATION, and OTHER COUNTY Groups on the Iowa Silent Reading Test 222

4.50 Prince Edward County--Mean Percentages of Items Correct on Time Telling Test for Ages Five through Eighteen 225

4.51 Other County--Mean Percentages of Items Correct on Time Telling Test for Grades One through Four 225

4.52 Prince Edward County--Within Sample Comparison 226

4.53 Other County--Within Sample Comparison 226

4.54 Other County versus Prince Edward County 227

4.55 Stanford-Binet I.Q. Means and Medians by Chronological Age for the EDUCATION and NO EDUCATION Groups and a Sample of Southern Negro Children 232

Table Page

4.56 Statistical Comparisons for the 6- to 10-Year-Old Age Groups 233

4.57 I.Q. Score Distribution of the 1937 Standardization Group 236

4.58 Results of the Analysis of Variance of Subtest Scores of the Metropolitan Readiness Tests 238

4.59 Means and Standard Deviations, Metropolitan Readiness Test Subtest Scores of Prince Edward County Children Classified by 1959-1963 Education 239

4.60 Comparison of Total Readiness Scores of Seven- and Ten-Year-Old Children Classified by Education 241

4.61 Results of the Analysis of Variance of the California Test of Mental Maturity Scores 242

4.62 California Test of Mental Maturity Mean I.Q. by Chronological Age for EDUCATION and NO EDUCATION Children 242

4.63 S-B and CTMM Total Mean I.Q. for the EDUCATION and NO EDUCATION 12- to 15-Year-Old Age Group 243

LIST OF FIGURES

Figure Page

1 Regression of Grade Equivalent Score on Age for the Stanford Achievement Paragraph Meaning Subtest 206

2 Regression of Grade Equivalent Score on Age for the Stanford Achievement Word Meaning Subtest 207

3 Regression of Grade Equivalent Score on Age for the Stanford Achievement Language Subtest 208

4 Regression of Grade Equivalent Score on Age for the Stanford Achievement Spelling Subtest 209

5 Regression of Grade Equivalent Score on Age for the Stanford Achievement Arithmetic Reasoning Subtest 210

6 Regression of Grade Equivalent Score on Age for the Stanford Achievement Arithmetic Computation Subtest 211

7 The Relationship Between Mean Stanford-Binet Intelligence Quotients and Age for the EDUCATION and NO EDUCATION Groups 234

8 Stanford-Binet Median I.Q.'s at Each Age Level 235

LIST OF APPENDICES

Appendix Page

A. PHASE I SURVEY QUESTIONNAIRE 258

B. CHILDREN'S QUESTIONNAIRE 268

C. PARENTS' QUESTIONNAIRE 277

D. SELF-CONCEPT OF ABILITY TEST 284

E. STATISTICAL DATA 287

E.1 Intercorrelations of Age, I.Q., and Subtest Achievement Scores for 124 Students 288

E.2 "t" Ratios for Stanford Achievement Tests Subtest Comparisons Between 11- and 17-Year-Old Students in NO EDUCATION, EDUCATION, and OTHER COUNTY Sample 289

E.3 Means and Standard Deviations of Stanford Achievement Test Subtest Grade Equivalent Scores of Children in Three Educational Categories 290

E.4 Percentage Distribution of Grouped Stanford-Binet Intelligence Quotients for Prince Edward County Children Classified by 1959-1963 Educational Status 291

CHAPTER I

THE PROBLEM AND OBJECTIVES OF THE STUDY

In the spring of 1959 the Prince Edward County, Virginia, Board of Supervisors voted not to re-open the County's public schools rather than to integrate its educational facilities as required by the 1954 United States Supreme Court decision. From that time until the fall of 1963 the majority of the Negro children in the County were without formal education while the County's white children attended a private segregated school. In the fall of 1963 an integrated private school known as the Prince Edward Free School Association was opened with the assistance of the United States Department of Justice and a group of Virginia educators, and it was attended by most of the Negro and a few white students. It was not the purpose of this study to examine what happened in the Free Schools although further reports will deal with this issue. Before discussing the procedures and major objectives of the present research problem, a few pages will be devoted to a brief historical account of the various factors and incidents which led to the closing of the public schools in 1959.

Dissatisfaction of the Negro population with their social and economic position in relation to the majority racial group and dissatisfaction incurred by the lack of adequate educational facilities precipitated the closing of the public schools in 1959. Examples of such inadequacies in educational facilities can be found in the thirteen Negro schools in the County built of wood or clapboard and frequently covered with tar paper.

Outdoor privies, wood stoves, manual water pumps, and a total property value of $329,000 were other indications of a poor educational system for Negro children while seven schools for white children were of sound brick construction, had indoor flush toilets, lavatories, steam or hot water heat, and a total property value of $1,200,000.[1] Only Moton High School (not built until 1953) and the Mary E. Branch Elementary School No. 1 were of brick construction and possessed water under pressure and steam or water heat. Moton High School, the newest and best of the Negro schools in the County, had insufficient desks and equipment to provide adequately for its 650 students.

In October, 1950, adult Negroes in the County attempted to secure improved school facilities for their children, and when this request was met with little or no action on the part of white leadership, the students themselves organized a school strike in April. 1951. At this time approximately 450 Negro students walked out of their high school to protest the inadequate educational conditions in the County's Negro schools. The strike was organized by the students, but on that same day a student leader contacted the attorneys of the National Association for the Advancement of Colored People in Richmond and requested legal assistance. Two days later the Negro Parent-Teacher Association met and endorsed the action of the students. The NAACP attorneys agreed to meet with the students and their parents and subsequently agreed to take the case. The attorneys submitted a petition to the County School Board and the Superintendent of Schools requesting a policy of non-discrimination in the public schools. This petition was rejected, and on May 23, 1951, the Negro attorneys filed a petition with the United States District Court of Eastern Virginia.

---

[1] Edward H. Peeples, A Perspective of the Prince Edward County School Issue, unpublished Master's Thesis, Center for Human Relations, Graduate School of the University of Pennsylvania, 1963, 18.

Negro leaders, convinced that the securing of equal facilities for Negro students would not eradicate the essential issue involved, began to attack the separate-but-equal principle of school segregation. This stand brought about a series of legal moves on the part of Negro leadership to secure not only adequate school facilities, but also desegregated education, and a commensurate series of counter-moves on the part of white leadership to prevent this. In May, 1952, the United States District Court sustained the statutes requiring racial segregation, but ordered equalization of school facilities. In 1953, Prince Edward County school officials began construction of a new Negro high school (Robert Moton) in an effort to bolster the separate-but-equal school doctrine. But in May, 1954, the United States Supreme Court delivered its decision declaring that laws requiring racial segregation in public schools were unconstitutional. The Virginia State Board of Education promptly advised all school boards to maintain separation of races in the public schools, and the Prince Edward Board of Supervisors passed a resolution substantiating that stand. In May of 1955, the United States Supreme Court stated that the defendants must make "a prompt and reasonable start toward full compliance with our May 17, 1954, ruling . . ."[2] In answer to this decree the County Board of Supervisors voted to appropriate funds to operate schools for only thirty days at a time. In the meantime, white leadership in the County called a meeting on the school issue which resulted in the formation of the Prince Edward School Corporation, the forerunner of the present Prince Edward School Foundation now in charge of the private schools for whites. No consideration of the educational needs of the Negro children was given by the Prince Edward County Board of Supervisors at that time. In February, 1956, the Virginia General Assembly adopted a resolution upholding the sovereignty of Virginia against encroachment upon the reserved powers of the state. Whites in the County then presented a petition of intent at the meeting of the Board of Supervisors to the effect that in order to maintain educational segregation, they would abandon public schools altogether if this became necessary. The State of Virginia supported the County in its efforts to avoid complying with Court decrees to desegregate the public schools, and in 1956 passed anti-NAACP laws requiring cessation of solicitation for court suits in an action in which the solicitor was not a party. In 1958 Judge Hutcheson of the Federal District Court handed down a decision giving the defendants a seven-year delay for compliance with the order to desegregate school facilities. This decision was appealed to the United States Circuit Court of Appeals. In the fall of 1958 the Virginia Supreme Court of Appeals and the United States District Court in Norfolk ruled against Virginia's massive resistance laws. Judge Hutcheson's decision was reversed in 1959 by the Fourth Circuit Court of Appeals which ordered desegregation in the high schools for September, 1959. The demise of the massive resistance laws left Prince Edward County without state statutes to prevent school desegregation. Shortly after the Circuit Court gave its order, the president of the Prince Edward School Foundation announced that full-scale preparation for the operation of private schools for white children would start immediately so that these schools would be open by September, 1959. In June, 1959, the County Board of Supervisors met and rejected a school board budget designed for operating public schools during the 1959-1960 school year, and instead approved a budget sufficient only to maintain closed school facilities and to pay school indebtedness. In September, 1959, the Prince Edward School Foundation opened its all-white private schools, and the 1,700 Negro children in the County were left entirely without educational facilities.

---

[2] Race Relations Law Reporter, 1, 1956, 12.

Much criticism was forthcoming for their failure to provide school facilities for Negro children, and in December, 1959, white leaders in the County chartered a corporation called "Southside Schools, Incorporated" and invited Negro parents to enroll their children in this all-Negro, private school system for an annual tuition fee of $240. Only one application was returned by Negro parents, and consequently, Southside Schools abandoned its plans for opening schools for Negroes by February, 1960. Negro leaders and parents feared that their legal position would be jeopardized by accepting funds for private schools and that the establishment of segregated private schools would be a re-acceptance of compulsory school segregation.[3]

Being aware of the Prince Edward County, Virginia, educational situation, the principal investigator visited the County in January, 1963, and informal interviews with local Negro leaders and citizens were held. At that time it was felt that a study of the educational status of the

---

[3] Personal communication: Reverend L. Francis Griffin of Farmville, Virginia, President of the Virginia State National Association for the Advancement of Colored People, June, 1963.

Negro children in the County was possible and mandatory. A proposal was submitted to the United States Office of Education in February, 1963, requesting funds to conduct such a study. The proposal was funded in April, 1963, and the study began during the latter part of that month.

The major problem of focus of this investigation was to determine the general effects of closed public schools on the sociological environment of Prince Edward County's Negro population. The secondary problem was to explore in more detail those selected factors which resulted from educational and social deprivation.

Major Objectives of the Study

This study's general objectives were to acquire extensive background information on both the adult and non-adult Negro members of the Prince Edward County community and to integrate this information with subsequent interview and test responses.

A basic orientation held throughout this study was toward the central question: What role does formal education play in our society? The community studied here, lacking the normally pervasive variable of formal education for a period of years, offered a chance to provide some answers. Generalizations arising from the study of this educationally ablated sample must be in context and along more specific lines to be meaningful. Therefore, the following specific objectives were evolved:

I. With reference to the community's adults

   A. To determine the characteristics of those adults leaving the community as contrasted with those who stayed

B. To determine the effects of the absence of schools on the
  1. Compensatory activities initiated
    a. community agencies
    b. parents
    c. elder siblings
  2. Communication and social interaction between the community's Caucasians and Negroes

II. With reference to the community's children

A. To determine the characteristics of children in the community
  1. Parental characteristics
  2. Demographic characteristics

B. To determine the effects of the absence of schools on
  1. Measured educational achievement
    a. general academic achievement
    b. time-telling skills
  2. Remedial effects from intensive short-term programs on readiness levels of younger children and educational achievement of children of all ages
  3. Intelligence
  4. Conceptions of academic ability
  5. Educational and occupational aspirations
  6. Choice of model
  7. Patterns of delinquency

The closing of the schools led to vast changes in the community. These changes were not only evident in the performance of the children on a variety of tasks, but were also manifest in the actions, attitudes, and beliefs of the members of the Negro community. This study endeavored not only to document the results of these changes, but to the extent possible, to chart their path during the 1959-1963 period.

Throughout the subsequent sections of the report, certain titles and abbreviations will be used. The children who attended school during 1959-1963 will be called the EDUCATION group or sample. The children who did not attend school during this period will be called the NO EDUCATION group. The children from the neighboring county will be called the OTHER COUNTY group. Prince Edward County will be abbreviated to PEC, and it should also be understood that the test scores and other responses are of the Negro population of Prince Edward County and of the Negro population of the adjacent county.

CHAPTER II

RELATED RESEARCH

Many assumptions have been made concerning the probable effects of extended periods of non-schooling. Paramount among the assumptions is that certain basic skills such as the attainment of verbal concepts, reading comprehension, and arithmetic reasoning can more readily be acquired in a formal school setting with a teacher trained in educational methodology. However, a review of the literature indicates that the above assumption, so often taken for granted, has not been empirically assessed. This lack of educational research on the effects of non-schooling is probably a result of the national trend of universal school attendance.

There is, however, a body of research focusing on such factors as the impact of the environment on school achievement with varying individual and measurement characteristics. There are even a few studies touching on selected aspects of the cognitively deprived child. These relevant studies will be presented without great detail to facilitate generalizations derived from their results. The studies will be categorized into the following three sections: (1) intelligence and schooling, (2) achievement and schooling, and (3) cognitive deprivation. Following this, studies pertinent to the social effects of non-schooling such as aspiration levels, attitudes, values and morale will be presented.

Section 1: Intelligence and Schooling

The research cited in this section indicates that an individual's intelligence in the school context is not independent of many aspects of that context, nor of several personal characteristics brought to the schooling situation, nor of certain aspects of the tests used to measure intelligence while in the educational context. Specifically, the variables can be schematicized as follows:

I. Personal Characteristics
  A. Age
  B. Sex
  C. Race
  D. Motivation
II. Context Characteristics
  A. Immediate
    1. Socio-economic class
    2. Parental education and marital status
    3. Number of siblings
    4. Radio in the home
    5. Grade level
    6. Amount of prior education
  B. General
    1. National stress (war versus peace)
    2. Population density (urban versus rural)
    3. Caste limits (degree of segregation)
    4. Cognitive deprivation

III. Measurement Characteristics

  A. Time emphasis (speeded versus non-speeded items)

  B. Examiner (color and attitude)

  C. Language emphasis (verbal versus non-verbal items)

I. Personal Characteristics

The individual represents a composite of the fixed factors of his heredity, and these factors provide a basis for the molding influence of the environment. The limits of a general intelligence or an adaptational aptitude may well be spelled out by individual heredity. However, the two fixed characteristics which past research has indicated as relevant to intelligence and schooling are sex and race.

Arlitt (1922) found that Negro girls ages 5 and 6 intellectually excelled the Negro boys of the same ages in Philadelphia and New Orleans. Anastasi and D'Angelo (1952) found that, in northern mixed and unmixed neighborhoods, five-year-old white girls surpassed white boys in intelligence while Negro boys surpassed Negro girls of the same age levels. The difference was more pronounced in unmixed neighborhoods. Thus, at an age where white and Negro intelligence is comparable, the general trend is that girls outperform the boys, but as the degree of caste limitation is increased, the relationship may reverse itself. Unfortunately, Arlitt's pooling of Negro children from segregated New Orleans and unsegregated Philadelphia precludes checking for confirmation of Anastasi's findings.

Just as the influence of sex on intelligence tends typically to favor one sex over the other but may reverse with certain caste limitations, race as an influence on intelligence tends typically to favor one race over another (whites over Negroes in the United States). This influence also may fluctuate according to the severity of caste limitations.

Of the literature cited in this section, four studies use white and Negro comparison groups of school children. (Only groups actually tested by the author in question are being considered as "comparison groups".) Three of the four studies (Anastasi, 1952; Clarke, 1941; Higgins and Sivers, 1958) test children drawn from northern integrated schools and areas. All three find no significant differences between races on the basis of I.Q. Higgins and Sivers did find the Negroes to be significantly lower on the Colored Ravens Progressive Matrices (CRPM) I.Q., but they attribute this to deficiency in a special skill since no significant difference was found on the Stanford-Binet I.Q. On the other hand, the fourth study (Lacy, 1926) which did find Negroes to have significantly lower Binet or Otis I.Q.'s than whites, drew its sample from a segregated community. These data suggest race in itself to have no effect on general aptitude except in the context of severe caste limitation.

Five studies (Arlitt, 1922; Higgins and Sivers, 1958; Kennedy _et al_., 1961; Tomlinson, 1944; and Young and Bright, 1954) testing intelligence at different ages all found the I.Q. of Negro children to decrease with age. Higgins and Sivers also found the I.Q.'s of white children (from the lower socio-economic class) to decrease with age. Tomlinson found the biggest jump to be between ages 4 and 5 suggesting either a critical period, a traumatic effect from introduction into a school situation, or both. In all cases, white and Negro intelligence were comparable when tested from ages 4 to 6. The apparent negative effect of schooling context over time on the intelligence of lower-class white and Negro children is certainly contrary to what is normally expected of the education process.

The motivation to perform well on an intelligence test can influence the resultant I.Q. This variable fits better under the rubric of individual characteristics rather than with the measurement variables since three studies show motivation may often, regarding Negroes, be a permanently depressed personal characteristic independent of the testing context. Miner (1957) suggests that this depressed motivation definitely lowers the measured I.Q.'s of many Negroes. Roen (1960) agrees and links the depressed motivation to a lack of self confidence, and Davidson (1950) attributes it to a lack of social goals in the face of limited opportunity. Thus the attitudes reinforced in a Negro by his educational context will shape the motivational level which, in turn, determines how open the child's intelligence will be to growth in that same educational context.

II. Context Characteristics

Among the factors in a child's immediate context studied as germane to its intellectual growth are socio-economic class, parental education and marital status, number of siblings, the presence of a radio in the home, the amount of prior education, and grade level. Five studies (Arlitt, 1922; Horton and Crump, 1962; John, 1962; Blanks, 1955; and Kennedy et al., 1961) show intelligence to increase with increasing socio-economic status of the individual or his family. A sixth (Jenkins, 1943) points out that, of sixteen Negro children with an I.Q. over 160, none had parents in lower than middle-class socio-economic status. The lowest educational level among the parents was high school graduation. Horton and Crump (1962) also found, in the comparison of three-year-old Negro children of high and low intelligence, that the mothers' education, the number of siblings, and the number of married parents differentiated the groups. Intelligence increased with decreasing number of siblings and decreasing frequency of unmarried parents. Robinson and Meenes (1947), in testing Negro third graders on I.Q., did not find that any of the above factors correlated significantly with intelligence, but they did find that having a radio in the home did. Lorge (1945) found intelligence tested before and after a twenty-year interval depended greatly on the education received in between. Thus, intelligence is not only related to schooling, but also may be contingent to an extent on its continuation.

One final factor occasionally linked to the intelligence of a child is the grade in which he happens to be. Lacy (1926), for example, found the I.Q.'s of Negro children to decrease with increasing grade, finally leveling off between sixth and twelfth grade. Lorge (1945), however, emphasized that years of school attendance and the highest grade completed are not always the same thing; i.e., grade level is not synonymous with the time exposed to education nor is it synonymous with age. In the South especially, children of quite advanced age are found in the early grades since promotion is contingent on a fixed level of achievement. Another study suggests that grade level in itself influences intelligence only as it correlates with age; e.g., Kennedy _et al_. (1961), studying southern Negro children (where age and grade are not as highly correlated as elsewhere in the United States) found no significant difference in I.Q. by grade level but found a very significant difference by age.

In terms of the general context, national stress was reported to have depressed I.Q. in Holland's schools during World War II (de Groot, 1948). Based on that study, increasing population density appears to lead to increased intelligence. Coppinger and Ammons (1952) found the I.Q.'s of Louisiana Negroes to be higher in urban than rural areas. Kennedy et al. (1961) in their survey of five southern states found no significant difference between rural and urban Negro I.Q.'s but did find a significantly higher metropolitan I.Q. than either one of the latter two. All of Jenkin's (1943) Negro children who earned I.Q.'s of 160 or higher came from major cities. He suggests that only the cities have the recognition methods and necessary facilities to nourish exceptionally intelligent Negro children.

The effects of caste limits on intelligence have been discussed throughout this section, especially under the topic of race and sex. Low socio-economic status, as applied to all races, and segregation and discrimination against minorities (predominantly the Negroes) provide a general context against which the intelligence (and achievement) of the minorities involved is far from independent.

III. Measurement Characteristics

As previously mentioned, a low caste group may have typically depressed achievement motivation to carry into an intelligence testing situation. Items depending heavily upon high motivation will therefore present more difficulty for a group of this nature than would items not as heavily motivation-weighted. Davidson et al. (1950), in comparing the intelligence test results of white and Negro psychoneurotics, definitely found the Negroes performing better at passive (unspeeded) attention problems than at active (speeded) attention problems. Bean's (1942) administration of a verbal and non-verbal I.Q. test to Louisiana Negro eighth graders and his conclusion that, since both elicited low scores, cultural opportunity (verbal test) alone is an insufficient explanation for low Negro I.Q., is suspect because both tests were speeded.

Pasmanick and Knobloch (1955) found Negro children at age 2 (in their third I.Q. test session) showing sudden decline in verbal responsiveness to a white examiner. This illustrates that the attitude, empathy, color, all the things an examiner's manner and appearance convey to the subject, may be relevant variables even at the tender age of two years.

An attempt has often been made to differentiate the intelligence of different groups on the basis of verbal versus non-verbal or performance intelligence tests. Occasionally non-verbal measures are labeled "culture-free". However, the high correlation usually seen between verbal and non-verbal I.Q. tests suggests that they have a lot in common. Predictably then, "verbal" and "non-verbal" differences will be contradictory in different studies depending mostly on sampling error. For example, in testing the I.Q. of southern Negro children both Bean and Kennedy et al. found verbal items to elicit lower I.Q.'s while Hammer (1954) and Newland and Lawrence (1953) found non-verbal items to elicit lower I.Q.'s. Clark (1941), in a northern comparison between white and Negro children, found the Negroes superior on verbal items. In general, past opinion has placed Negroes at a disadvantage with the verbal items and at an advantage with non-verbal since the latter are supposedly more free of the effects of cultural deprivation. However, previous research does not support the latter notion.

As previously mentioned, Higgins and Sivers found Negroes to fall below whites on the Colored Raven Progressive Matrices (CRPM), a "culture-free" I.Q., although the Stanford-Binet showed no significant differences for the same groups. Levinson (1961) demonstrated that Jewish children, initially scoring equally well on verbal and non-verbal items, showed higher verbal than non-verbal I.Q.'s after two years in a Yeshiva Day School that emphasized verbal facility. Thus, intelligence tests, influenced to an extent by presence or absence of verbal training, are also influenced by training and acculturation in general. Neither the intelligence tests nor the children that take them are ever "culture-free".

This discussion has touched on some of the variables related to intelligence in an educational context. The research cited above, alphabetized for easy reference, is discussed more fully in the following pages.

Intelligence and Schooling: Studies Cited

Measures of linguistic development (developed by McCarthy) and the Goodenough Draw-A-Man I.Q. were obtained by Anastasi and D'Angelo (1952) on 100 five-year-old Negro and white children attending New York Department of Welfare Day Care Centers. The subjects included twenty-five Negroes and twenty-five whites living in uni-racial, unmixed neighborhoods, and twenty-five Negroes and twenty-five whites living in inter-racial, mixed neighborhoods. The sex ratio was approximately the same in these subgroups; socio-economic and other background factors were uniform in all groups. No significant differences by race were found in the Goodenough Draw-A-Man I.Q., but girls excelled in all subgroups. Mean sentence length yielded a significant race to sex interaction. In the white groups, the girls surpassed the boys while, in the Negro groups, the boys excelled. This reversal of sex difference among the Negroes was more pronounced in the unmixed neighborhoods. Overall race difference in mean sentence length and structural characteristics was slight and mostly insignificant, but it favored the whites. Subgroup comparisons in sentence structure again showed a reversal of sex difference between Negroes and whites, the reversals being more marked in the unmixed neighborhoods. The authors suggest, on this basis, that future Negro-white test comparisons compute separate results according to sex.

Arlitt (1922), using the 1916 revision of the Stanford-Binet, investigated the relation of intelligence to age in a sample of 243 Negro school-age children. The subjects, 129 males and 114 females, were drawn from the New Orleans and Philadelphia areas. The entire sample was tested by the author with the assistance of four graduate students. The subjects did not represent the entire socio-economic range since over 90 percent of the sample was of very low socio-economic status.

The results of the testing were categorized by age level and sex. A comparison was then made with Terman's results for white children of the same socio-economic status. The median I.Q. for Terman's group, all ages combined, was 93. The median I.Q. for Negro children aged 5 to 6 combined was 100 which was seven points above that of whites of the same social status. Seven-year-olds had an I.Q. of 90.9, or 2.1 points below that of Terman's sample. The median I.Q. for eight-year-olds was 87.5; that of nine-year-olds was 83.9, or 9.1 points below that of whites; and the median I.Q. of the ten- to fifteen-year-olds was 78.9, or 14.1 points below that of whites of the same social status.

Combining age groups so that each contained at least 99 individuals, the following results were obtained: the median I.Q. for 104 subjects between the ages of 5 and 7 was 93.5; for 99 eight- and nine-year-olds was 86, or seven points below that of whites; and for 139 eight- to fifteen-year-olds was 83.3, or 9.7 points below that of whites of the same social status. The percentage of children with I.Q.'s below 70 increases steadily from 0 percent at ages 5 and 6 to 25 percent at ages 10 and 15 combined. A slight sex difference in measured I.Q. was found with girls performing at a higher level when either the average I.Q. or the median for the total group was considered. Four girls and no boys earned I.Q.'s of 120 or above, and seven girls and five boys fell within the 110 - 119.9 range. Of the twenty-one children with I.Q.'s below 70, thirteen were boys and eight were girls.

Arlitt concluded from her study that: (1) measured I.Q. for Negro children decreases with age; (2) at ages 5 and 6, Negroes are superior to whites of the same social status. At all ages beyond 6, Negro children in her sample were inferior to white children in Terman's sample, and this inferiority increases with age; and (3) a slight sex difference in measured I.Q. exists with Negro girls being superior.

Forty-nine eighth grade pupils from a Negro high school in Baton Rouge, Louisiana, (twelve boys and thirty-seven girls) ranging in age from thirteen to eighteen were administered the Otis Self-Administering Intermediate Examination, Form A and the Revised Minnesota Paper Form Board, Series BB by Bean (1942). The two tests, verbal and non-verbal, supposedly represented the same three general types of question concepts: classification, arrangement, and thinking in terms of relationships. Both were speed tests. The mean percentile for the Otis Test was 11.8 (range 0 to 80), and the mean percentile for the Minnesota Paper Form Board was 23.2 (range 0 to 100). A t-test showed the difference to be significant at the .05 level. The test correlation was insignificant (correlation .23). The author concludes that the group of Negroes tested is distinctly inferior to whites of the same age in thinking ability with verbal and non-verbal problems involving classification, arrangement and relationships. A warning is given against interpreting any low Negro scores on group tests as being accounted for entirely by lack of cultural opportunity.

Bean's study may be open to criticism since neither the conclusion or warning are justified by the data. No local white control group was run; cultural opportunity lacks were not examined in any way; the sample size was small for any generalization to a population of Negroes or even Baton Rouge Negroes. In regard to subject selection it was stated, "They were selected at random and, according to the teachers, they were slightly below the average group of students for that school."[1]

Blanks (1955) divided an unspecified number of Negro high school seniors into "bright" and "dull" categories on the basis of performance on the SRA Verbal and Non-Verbal Classification Forms. Groups were drawn from 406 seniors from five public schools in Jefferson County, Alabama. The groups were given Cooperative English Tests and Cooperative General Achievement Tests. Next, the groups filled out the Heston Personal Adjustment Inventory and a questionnaire on their background, interests, and ambitions. T-tests and chi-squares were used where appropriate although none are quoted in this thesis abstract. Only the analytic thinking scale on the personality inventory, the grade point average, and the achievement tests significantly differentiated the "bright" and "dull" groups. Educational aspirations, interests, confidences, sociability, emotional stability, number of siblings, parental education and occupation, socio-economic status--none of these significantly differentiated the groups. The author concludes that social factors and personality traits are not relevant variables in the "brightness" or "dullness" of Negro high school students. He also mentions that his study is the first comprehensive attempt to ascertain the nature and extent of factors tending to differentiate "bright" and "dull" Negro high school seniors in the South.

---

[1] Kenneth L. Bean, "Negro Responses to Verbal and Non-Verbal Test Materials," The Journal of Psychology, 1942, Vol. 13, 346.

Clark (1941), using Form L of the 1937 Stanford-Binet scale examined the response patterns and mean I.Q.'s of a matched sample of Negro and white youngsters. The subjects were 116 white and 116 Negro boys between fourteen and sixteen years of age from the New York Training School for Boys. The author indicated that the subjects were matched on age, environmental background, social and economic status, motivation, and rapport. The Negro subjects earned a mean I.Q. of 90.4 with a standard deviation of 7.8, and the Caucasian subjects had a mean of 90.5 and a standard deviation of 7.7. An item analysis of the test indicated that the Negro subjects were superior on verbal items and the Caucasian subjects superior on reasoning items.

Coppinger and Ammons (1952) tested eighty Negro children in grades one through eight (ten children in a grade) in Louisiana using both forms of the Full Range Picture Vocabulary Test and the Vocabulary Test from Form L of the 1937 Stanford-Binet. The sample was stratified with respect to grade placement, age, sex, and parental occupation. Scores on the two forms correlated +.96 with each other and +.81 and +.84 with Binet vocabulary scores. There was no sex difference or practice effect although, in the higher grades, urban Negroes so far outdistanced rural Negroes as to reach the scores of the white standardization group. The authors suggest that this may mean similar cultural experiences would dissipate Negro-white intelligence test differences. The authors conclude that their test is suitable for southern Negro children with the use of these Negro norms.

Matched groups of forty-one white and forty-four Negro psychoneurotic patients at the Detroit Mental Hygiene Clinic were given Form I of the Wechsler-Bellevue I.Q. Test. The authors, Davidson, Gibby, McNeil, Segal, and Silverman (1950) indicated that all were clear psychoneurotics who had no education beyond grade 12 (education and age were matched well--no significance was shown by the t-tests). The verbal subtest showed no significant difference (.05) except for arithmetic in which Negroes were lower. In the performance tests Negroes scored significantly lower on Picture Arrangement, Picture Completion, Block Design, Object Assembly, and Digit Symbol subtests. The authors attribute this to the lack in the Negro of "the middle-class anxiety to get things done" since the lower subtests emphasize speed and time relationships.

> "It is our hypothesis that this 'why hurry' attitude, in the face of a relative lack of attainable socio-economic goals, conditions the responses of Negroes as a group so as to result in lower mean performance subtests scores on the Wechsler scale."[2]

The authors continue that the arithmetic test measured active concentration ability whereas the digit span test measured more passive attention and that whites surpassed Negroes in this study on the arithmetic test while Negroes surpassed the whites (insignificantly) on the digit span test. They conclude that this further demonstrates that the more passive adjustment of the Negro to his social environment prevents him from concentrating actively on problems. However, it should be noted that the authors make their generalizations about "normals" from a population of psychoneurotics.

de Groot (1948), in assessing the effects of poor school conditions during World War II upon intelligence test scores, found that the mean

---

[2] Kenneth S. Davidson, Robert B. Gibby, Elton B. McNeil, Stanley J. Segal, and Herbert Silverman, "A Preliminary Study of Negro and White Differences on Form I of the Wechsler-Bellevue Scale," Journal of Consulting Psychology, 1950, Vol. 14, 491.

I.Q's of successive entrance classes of age 13 in industrial schools in Holland dropped steadily. This drop was interpreted to be the result of the influence of the war as World War II affected school conditions in Holland.

Table 2.1

Mean and Variability of the I.Q.'s of Applicants
To the Philips Industrial Training School at Eindhoven, Holland
For the Years 1938 to 1950[3]

Interpretation	Year	N	M_{IQ}	SD_{IQ}
Normal prewar level	1938	416	98.9	10.5
	1939	347	100.5	10.1
	1940	305	100.2	10.5
Irregular supply of applicants during occupation	1941	242	103.5	11.2
	1942	663	100.8	10.0
	1943	176	103.6	9.9
Considerable drop resulting from poor school conditions during occupation and war	1944	703	97.9	9.7
	1945	433	95.1	10.4
	1946	488	95.5	9.5
	1947	634	95.8	10.0
	1948	491	97.9	9.5
Postwar recovery to normal level	1949	568	100.3	10.3
	1950	551	100.3	10.5
	1951	721	101.6	10.8

The years 1946 and 1947 brought no improvement in test scores which the author felt were statistically reliable. However, the average I.Q. values for 1948 to 1950 achieved the prewar levels. de Groot explains the unusually high average I.Q.'s and small number of applicants for 1941 and 1943 in terms of positive selection. In discussing his findings, de Groot argues that education apparently has considerable influence on I.Q., and the notion that I.Q. is a direct index of innate intelligence should be dropped.

---

[3] A. D. de Groot, "War and the Intelligence of Youth," The Journal of Abnormal and Social Psychology, 1951, Vol. 46, No. 4, 597.

The California Test of Mental Maturity and House-Tree-Person were administered to 207 students at the Madison Heights Negro School, a "representative" semi-urban, semi-rural school in Virginia by Hammer (1954). The Time Appreciation Test, a short form "emergency" intelligence scale, was administered to all students ten years of age or above. The 207 students ranged in age from seven to twenty-three and in grades 1 to 12. The author concludes that both the time test and the mental maturity test would be better interpreted for Virginia Negroes with an I.Q. of 75 rather than 100 as midpoint; that the relatively inferior performance of the Negro subjects in comparison to white norms on these tests may be attributed to neurotic emotional adjustments (shown by an analysis of H-T-P by Bach); and that this neurotic handicap may be even greater in its consequences on intellectual function than the language handicap caused by cultural deprivation. (The Negro students scored significantly lower on the non-language factors than the language factors --t-test at .01.) Hammer attributes the emotional maladjustment to the social, economic, cultural, and interpersonal pressures to which the Negroes, as a minority group, are subjected.

Higgins and Sivers (1958) tested 789 pupils, ranging in age from 7 to 12, on the Stanford-Binet and Colored Raven Progressive Matrices Intelligence Test. All children came from public schools in the lowest socio-economic area of a northeastern city. The breakdown was 349 Negroes and 440 whites--389 boys and 400 girls. All were tested individually, and comparisons on the Stanford-Binet were insignificant. There was a significant (.05) decrease in I.Q. with age (seven versus eight years and eight versus nine years) for both races and sexes! CRPM I.Q. means were significantly higher (.01) for whites than Negroes. Again, I.Q. decreased with age, although the decrease was only significant (.05) at the seven versus eight year comparison. The authors conclude that the Stanford-Binet does not discriminate races or sexes in a low socio-economic group; that the CRPM must measure a specific skill rather than general intelligence; and that this skill is apparently non-verbal and heavily loaded against Negro children.

Horton and Crump (1962) studied seventy-six Negro children whose percentile scores on the Merrill-Palmer scale fell within 1 - 19 or 80 - 99 at thirty-six months of age. Characteristics of both the child and his family were analyzed descriptively in relation to test performance, and included,sex, birth weight, height and weight at thirty-six months, socio-economic status, education of parents, employment status of mother, number of siblings, parents' marital status, and occupation of father.

Ten children fell to the superior group, and sixty-six fell to the inferior. The only factor analyzed statistically was the education of parents. It was found that the father's education was not important, but the mother's was. Socio-economic status (lower status = lower performance), number of siblings (the more siblings, the poorer the performance), and marital status (all superior parents were married; 20 percent of the inferior performance parents were unmarried). All factors showed "trends" but were not evaluated statistically. No other factors seemed to be relevant.

The major limitations of the study were related to sample size and selection.

Jenkins (1943) discusses cases of sixteen Negro children of Binet I.Q. 160 and above all coming from New York, Cincinnati, Chicago, or Washington. Their fathers were predominantly in high- or middle-class occupations and income levels. Nine of the mothers were teachers at one time. The lowest educational level reported for any mother was the high school level. Three were the children of Negro fathers and white mothers. The author points to the fact that gifted Negro children are often unrecognized as such; a case in point being the South where adequate identifying devices are lacking. If the sixteen cases are at all representative, there would seem to be a necessary minimum of parental education and socio-economic status for the appearance of gifted children. Gifted white children were not compared in this discussion with Negro children in terms of these prerequisite factors.

John (1962) examined patterns of linguistic and cognitive behavior in a sample of sixty-nine first grade and 105 fifth grade Negro children of varying social classes. The social class distinctions were (1) lower lower class; (2) upper lower; and, (3) middle class. The social status of the child was determined by a composite measure of the occupational and educational status of the main breadwinner and the person-to-room ratio of the main breadwinner. The Lorge-Thorndike Intelligence Test, the vocabulary subtest of the Wechsler Intelligence Scale for Children, the Peabody Picture Vocabulary Test, and a verbal identification test were the instruments used.

The results of the significance tests (analysis of variance) found no difference in linguistic and cognitive behavior at the first grade level. However, significant differences between the three groups on the WISC, Lorge-Thorndike Intelligence Test, and the integrative section of the verbal identification test were found at the fifth grade level. On the Lorge-Thorndike the lower lower class group obtained a mean I.Q. of 88.6 and a standard deviation of 13.4; the upper lower class group obtained a mean I.Q. of 97.5 and a standard deviation of 13.7; the middle class group obtained a mean of 100 and a standard deviation of 13.0. In the same order, the WISC Vocabulary means and standard deviations for the following groups were: (1) mean = 26.1, S.D. = 8.4; (2) mean = 30.2, S.D. = 8.7; and, (3) mean = 33.7, S.D. = 6.5. For integrative section of the verbal test, the means and standard deviations were: (1) mean = 63.6, S.D. = 7.5; (2) mean = 67.4, S.D. = 8.8; and, (3) mean = 69.2, S.D. = 5.2. Although the middle-class children surpassed their lower-class age mates in both verbal and non-verbal skills, they also performed at a significantly higher level on tasks requiring precise and abstract language. John concludes that although similar linguistic and cognitive trends exist at the first grade level, the emergence of significant group differences at the fifth grade level may reflect stable patterns of language-conceptual behaviors in the middle-class children.

The California Achievement Test and the Stanford-Binet (1960 Revised) were administered over a three-day period by Kennedy, Van De Riet, and White (1961) to 1800 Negro elementary children who were selected from five states--Alabama, Florida, Georgia, Tennessee, and South Carolina. These children were to represent metropolitan urban, and rural counties, varying socio-economic status, grade levels and age. The mean I.Q. for all groups was 80.7 with an S.D. of 12.4. There was no significant trend in grades one through six as to I.Q., however, the I.Q. was negatively correlated (significance was not given) with age. The five-year-old I.Q. mean of 86 was significantly different (.001) from the mean I.Q. of 65 for the thirteen-year-old group. Although the age range was 5 to 16, beyond 13 the norm grew too small for any conclusions (9 or less). I.Q. decreased with decreasing socio-economic level (F significant at ,001) with the highest at a mean I.Q. of 105 and the lowest at a mean I.Q. of 79. There was a small significant difference (.001) in favor of metropolitan children as opposed to rural and urban I.Q.'s (84 as opposed to 79). An item difficulty analysis showed abstract verbal items to appear at too low a test level and rote memory items to appear at too high a scale level. As to the CAT, the greatest discrepancy between Negro performance as measured and the norms occurred at the sixth grade level. CAT results showed no significant difference between rural, urban, or metropolitan areas. Correlation between Binet and CAT was .69. The authors conclude that, as expected, the Negro school children fell below the norms on both I.Q. and achievement and that there is no significant difference in I.Q. from grade level to grade level nor from rural to metropolitan area and they find the latter hard to explain.

Lacy (1926) reports that 1228 colored children (assumed Negro) from kindergarten to twelfth grade and 5159 white children were tested on either the Otis or Binet-Simon I.Q. tests in Oklahoma City. Students came from segregated schools. The colored children did worse than the whites at all grade levels (no statistics were given), and the colored I.Q. decreased as grades progressed leveling off between sixth and twelfth grade. The author refers to achievement test results not included in the article as showing the same effect and as showing the colored children's major deficit to be in reading. The author concludes from this that the mental growth of colored children is slower than that of white children.

However, the following criticisms of the study are relevant: (1) no statistical analysis was given, unclear description of who took what test, or how subjects were selected, of how much smaller proportion of "colored" students than whites tested reflects community proportions, of what is meant by "colored"; (2) referral is made to achievement tests not presented; and, (3) segregated schools provide different environments for the two comparison groups--whites and colored. The author's advocation of segregated schools on the basis of differential mental growth rates may be interpreted also as a reflection on the differential learning environment (especially reading) offered in the two school systems.

The hypothesis that I.Q. stability in a subculture varies with the tasks selected as I.Q. measures was tested by Levinson (1961). It was predicted that tasks measuring stable subcultural values will remain stable themselves over years, but that an increasing emphasis on task-measured values would raise I.Q. and de-emphasis on the same factors would bring about a decline. Fifty-four Jewish children attending Yeshiva day schools to whom the WISC was administered in 1956 were retested in 1958 after two years of the Yeshiva day school. There was a statistically significant (.01 as obtained from a t-test) increase in WISC verbal scores but no significant increase in performance scores. The inference was that high verbal weighting of the Jewish subculture to the detriment of performance tasks was responsible for this and that item choice (verbal versus performance) determines a subculture's I.Q. stability.

Lorge (1945) tested 131 eighth graders on abstract intelligence and other factors in 1921 in the New York Public Schools. The subjects were retested twenty years later on the Otis Self Administering Test of Mental Ability (Form B) and the Thorndike Intelligence Examination for High School Graduates (Form V, part III). Subjects were also tabulated as to highest grade completed. The educational level was found to significantly increase I.Q. twenty years later. Otis scores for men who had completed thirteen or more grades of schooling were higher than those for men who had completed less than twelve grades of schooling, holding constant the level of intelligence obtained in 1921. Equally able men were either penalized or aided by subsequent education in terms of their thirty-four-year-old I.Q. Another finding was that the highest grade completed correlated only .67 and .68 with the two 1941 intelligence tests while the 1921 test correlated only .36. The author concludes that a fourteen-year-old's I.Q. alone will not indicate reliably the amount of subsequent education received. A more important factor given is socio-economic status. (In a study conducted by Sibley, intelligent over non-intelligent has a four to one advantage for further education; highest economic group over lowest economic group has a ten to one advantage.) A distinction is drawn between "years of school attendance" and "highest grade completed" as measures of education, the latter being much less misleading and more reliable.

Miner (1957) presents studies to show that Negroes form the lowest performing national minority on intelligence tests in general and reasons for this are discussed. Cultural differences per se were minimized--several studies suggesting (especially McGurk) that Negroes may not be severely handicapped content-wise by items emphasizing the "white culture." More emphasis is given to the environment--geographical, educational, and socio-economical. The I.Q. improvement in southern Negroes who moved to the North as a function of length of residency and superiority of northern Negroes over southern whites in backward states suggests the importance of the environment. However, the author suggests that even where the environment is not materially deprived and where Negroes and whites receive the same amount of education, Negroes may score lower as a whole because of the most important factor: lack of equal motivation. Not only an equally rich environment is needed to fill the intellectual gap, but the same motivation to utilize this environment is also required. The racial restriction of opportunity cuts down the motivation to develop learning sets. The author concludes by saying that the demonstrated I.Q. improvement with enriched conditions and the immense and relatively lowest minority performance of Negroes suggests that they be given priority in an effort to change present conditions (presumably through restructuring the social system to increase Negro motivation to achieve). In his conclusion, the author supports the notion that motivation to develop learning sets may be inhibiting mean Negro I.Q. performance; equal access to cultural advantage with whites may correct this.

Newland and Lawrence (1953) administered a Chicago Non-Verbal I.Q. Test to a group of eastern Tennessee children. The tested population included all Negro children in attendance in selected eastern Tennessee schools, including 573 males and 567 females, aged 6 to 14. It was postulated that this non-verbal test might not disadvantage southern Negro populations if it were truly non-verbal. However, the Negro school children scored not less than two years lower than the normative data for whites at any age, and the test did not discriminate between children at the six- and seven-year levels and at the thirteen- and fourteen-year levels. However, no statistics were given.

Forty Negro children examined by a white examiner (Pasmanick and Knobloch, 1955) were found to have lowered language scores on the third examination at two years of age. This was due to lack of verbal responsiveness rather than language comprehension (difference was significant at .001). The authors point to this early racial difference awareness and loss of rapport as having serious implications for intelligence testing with children.

Robinson and Meenes (1947) gave the Kuhlmann-Anderson Intelligence Test to Negro third-graders in 1938 (444 cases) and 1945 (491 cases) in twelve public schools. The relationship between the child's I.Q. and the parents' occupations was found to be slight (no significance was given) but better in a year with "better work opportunities." However, a rank order correlation of .78 for 1938 and one of .64 for 1945 between average I.Q. and percentage of dwelling units with radios was found. The authors conclude that this result lends support to the hypothesis that cultural factors influence the I.Q. The authors fail to present statistical analysis. Furthermore, it would be interesting to see if the same relationship would hold for a white sample.

Roen (1960), using a sample of fifty Negro and fifty white soldiers from a southwest Army post matched them on ten biographical variables (the 100 subjects were drawn from a soldier population of 500) and gave two measures of intelligence (one from the Army Classification Battery; the other, a pattern analysis test from the Wechsler-Bellevue) and three personality measures (the California Test of Personality, Taylor Manifest Anxiety, and Bernreuter Personality Inventory Self Confidence Scale). Negroes scored significantly lower (.005) on both intelligence measures but significantly lower (.005) on only one personality measure--the self confidence scale. All three personalities correlated higher with intelligence scores for the Negro group than the white group. The author concludes:

> "the evidence . . . warrants further research . . . that Negroes as a group, lacking support from pride in significant historical achievement, and developing in an environment of negative experiences, incorporate intellectually defeating personality traits that play a significant role in their ability to score on measures of intelligence."[4]

Seventy-five Negro sibling pairs were given the Stanford-Binet in Austin, Texas, by Tomlinson (1944). The sex ratio was roughly even and the age range was from 4 to 9. All subjects were from segregated schools. The mean I.Q. for all subjects was ten points below white norms, with the I.Q. range more restricted than for white norms. I.Q. decreased with age consistently with four-year-olds significantly higher (significance was not given) than eight- and nine-year-olds (98 versus 84). The biggest difference from one year to the next is between the four- and five-year-olds (97.7 versus 90.5). This is attributed to either progressive dullness from inheritance or repressive surroundings or to poor test items based on experiences at higher age levels to which they have not been exposed. The inter-sibling I.Q. correlation was low (scale L = .36; scale M = .26) but the inference is that it is significant (no statistics are given but a check puts them both significantly at the .05 level). Correlation of a socio-economic factors score with I.Q.'s was lower for the younger group (no statistics are given), and its suggested environment therefore takes on greater importance with increasing age in relation to test performance. The author concludes by saying her findings are in essential accord with studies of culturally isolated and underprivileged groups of white children although no references are given. This study supports the findings of Arlitt (1922), Kennedy et al., (1961), Bright and Young (1954), and Higgins and Siver (1958) in that Negro I.Q. was found to decrease with increasing age, the biggest jump being between age 4 and age 5.

---

[4] Sheldon R. Roen, "Personality and Negro-White Intelligence," _Journal of Abnormal and Social Psychology_, 1960, Vol. 61, 150.

The Wechsler Intelligence Scale for Children was given to eighty-one southern rural Negro children by Young and Bright (1954). The mean I.Q. was 67.7 (age range 10 to 13). The younger subjects were significantly superior (.05) to the older group (ten- and eleven-year-olds versus twelve- and thirteen-year-olds) on verbal, performance, and full scale I.Q. especially in comprehension, arithmetic, similarities, picture arrangement, and object assembly. Verbal I.Q. was higher than performance I.Q. for both groups. Although WISC rated the mean I.Q. as feebleminded, the authors caution that the subjects did not appear to be so and add that the test item material was inappropriate for the children's environmental experience. "If further investigations of Negro rural children show that the I.Q. decreases consistently with age, this will be added evidence that relatively poor school and home environments depress the tested intellectual level."[5]

Section 2: Achievement and Schooling

Although, as the preceding section has demonstrated, intelligence is no longer considered to be a single general factor invariable for the individual, it still can be treated as a relatively stable set of aptitude limits. Between these limits fall the achievement levels elicited by specific tasks. Logically then, achievement should be sensitive to the same variables as intelligence and in addition fluctuate with further factors of its own. Past research shows this to be the case. Of the research to be cited in this section, some refer to the same factors as the preceding section while others focus in unexpected directions. The variables to be presented can be schematicized as follows:

I. Personal Characteristics
    A. Motivation
    B. Health
    C. Attention span
    D. Verbal ability
    E. Imagination

---

[5] Florene M. Young and Howard A. Bright, "Results of Testing 81 Negro Rural Juveniles with the Wechsler Intelligence Scale for Children," The Journal of Social Psychology, 1954, Vol. 39, 222.

II. Context Characteristics

   A. Immediate

      1. Socio-economic class

      2. Home conditions

         a. number of parents

         b. number of siblings

         c. parents' education

         d. parents' emphasis on self responsibility

         e. degree of physical punishment

         f. verbal environment

      3. School conditions

         a. verbal facilities

         b. remedial programs

   B. General

      1. Caste limits (degree of segregation)

      2. Cognitive deprivation

III. Measurement Characteristics

The same as in Section 1

I. Personal Characteristics

Schultz (1958), when testing the achievement of Florida ninth graders, found high achievement to be inversely correlated with the number of days absent from school. This might be due to ill health causing reduced exposure to educational content (Ransom (1939) found good health to correlate with good achievement). But it may also suggest, in many cases, a motivational lack of desire to attend school. Ransom found attention span as well as health to be relevant to achievement for 'Atlanta first graders. Scott (1963), after testing Oregon fifth and sixth graders, decided reading ability is the key to ability in other areas such as arithmetic and social studies. It was noted in the preceding section that all intelligence tests correlate somewhat with verbal ability (even the "non-verbal"). It would seem then, that the development of verbal ability is a crucial factor in both intelligence and achievement. Finally, Milner (1951) suggests that imagination may be a relevant variable as low scorers on a mental maturity test have relatively less of it than the high scorers.

II. Context Characteristics

Among the immediate contextual variables, once again socio-economic class and certain home conditions apply. Curry (1962) found that scores of southwestern white sixth graders on a standardized achievement test increased with socio-economic class rise with the exception of the highest scoring group which seemed to be independent of class level. Another finding was that parents' occupation levels correlated with a child's achievement.

Schultz also found achievement relating to number of parents, number of siblings, and parental education level--all in the expected direction. Milner confirmed the importance of parental education in her study and added the observed significant effects of a warm emotional and highly verbal family environment (correlated with high achievement) and high incidence of physical punishment (correlated with low achievement). Ransom also stressed the relevance of home conditions in general.

Willis (1939), in his study, found differential progress in a remedial reading program varying with the amount of verbal facilities (number of books in the library) the school had to offer. A group of white ninth graders in Nashville showed greater improvement than an equally intelligent group of Negro ninth graders. The enrichment program itself facilitated reading ability in both groups. Brazziel and Gordon (1963) also report facilitating effects when a special program ("Higher Horizons") was transplanted from New York to a southern segregated Negro seventh grade. By stressing self-concepts, self-expression, imagination, and better parent-teacher relations, reading and arithmetic performance showed improvement.

Among the general contextual characteristics, caste limitations again appear to be important. Hansen presents statistics to show that the integration of Washington, D.C., led to higher Negro achievement without depressing the achievement level of the white children. This is attributed to the more efficient pooling of resources although it is probable that the cessation of separate education involves cognitive effects as well as resource-using efficiency. Recently integrated areas offer excellent research situations for relating the cognitive variables to achievement. An additional finding in this area by McQueen and Churn (1960) is that, on the whole, elementary school students in a long integrated western community do not significantly differ in achievement according to race.

Cognitive deprivation, whether of educational, social, or cultural nature relates to both intelligence and achievement in the school situation. It therefore has been included in the variables schema of Sections 1 and 2 without discussion since the next section will present the handful of pertinent articles in some detail. Again, the research cited in this section, is presented more fully in the following pages.

Achievement and Schooling: Studies Cited

Brazziel and Gordon (1963) applied a modified version of the New York Higher Horizons program to an entering seventh grade class of 301 Negro students in Norfolk, Virginia. The program included an imaginative reading program, increased parent-teacher relationships, group guidance aimed at raising self-concepts, and school activities designed to encourage self-expression. Although there was no control group, the culturally deprived students (median I.Q. was 88) in reading and arithmetic performance showed a significant increase (.01) in mean score from September (California Achievement Test Form AA) to May (California Achievement Test Form BB). The May arithmetic results trailed national norms by the same amount as in September although the reading means had moved closer to the national level. (The significance between the experimental group and the norms was not given.)

Although at the end of the year the class was still below national norms, it was felt that significant progress had been made. However, lack of any control groups within the school studied may be a weakness. Inferences on the effects of the experimental treatment are not justified by comparison with national norms alone.

Curry (1962) reported that 360 sixth graders were randomly selected from 2,623 subjects in thirty-three schools in a large southwestern United States city. All were non-maladjusted Caucasian second generation Americans. Their mental ability was tested on the California Test of Mental Maturity and their socio-economic status determined by questionnaire. Students were divided into high, medium, and low intellectual ability groups with an equal number of males and females in each group. The division into high, medium, and low socio-economic groups was relatively equal with 114 - 140 students falling to each category. T-tests (at the .05 level) showed performance on the California Achievement Test to depend on socio-economic status as follows: high ability group--not at all; medium ability group--in language and total score; low ability group--in reading, language, and total score. At the medium and lower ability levels increasing socio-economic level demonstrates increasing achievement. The remaining arithmetic subtest showed a similar but insignificant trend. The results confine generalizations to Caucasian second generation American urban children at the sixth grade level. Rural Negroes or recent immigrants, for example, may not overcome the effects of cultural deprivation (low socio-economic status) even in the high ability category. The author, in his conclusions, generalizes to "the child" without qualification.

Ability beyond average may compensate for low socio-economic status as measured by achievement testing in the case of second generation American urban Caucasian sixth graders in the southwestern United States.

Hansen (1963) presents three hypotheses: (1) educational conditions and opportunities are superior in integrated as opposed to segregated school systems; (2) Negro pupils in particular performed better in the past five desegregated years than in the segregated five years prior to that; and, (3) white pupils have maintained the performance level shown in segregated years throughout the last five years of integrated schools. To illustrate his hypotheses, Hansen first showed median grade level reading scores for white and Negro sixth graders in 1952. The Negro median is a grade below the white and the national average (but: the white range is 3.6 to 11.0; the Negro range is 1.7 to 11.0). Hansen's next set of data combined white and Negro achievement results and analyzed them over four years (1955 - 1959) at grades 3, 5, and 6. All grades showed improvement. The 1958 - 1959 sixth grade group (72 percent Negro) reached or exceeded national norms in five out of six tests; in 1955 the sixth grade (62 percent Negro) had been below national norms in all six tests. Finally, four-year growth in paragraph and word reading (Stanford Reading Test) is represented as exceeding national norm expectations. Hansen considers, in summary, that desegregation in its effect on more efficient pooling of resources has compensated in large measure for the culturally deprived backgrounds of a majority of the students.

Negro students in the first eight grades of a western community were matched with whites on age, sex, grade, years in school, residential area, and father's occupation by McQueen and Churn (1960). After matching, the scores of fifty-five Negro-white pairs were compared on the Kuhlmann-Finch Intelligence Test (pairs of students were from the six higher grades). The mean white I.Q. was six points higher (101) and significant at the .05 level. However, the authors mention a "large measure of overlap" despite the mean difference. Forty Negro-white pairs (again from the higher six grades) were compared as to scores on the Stanford Achievement Test with no significant mean differences. From twenty-three to thirty-three Negro-white pairs in the first three grades were compared in arithmetic, reading, spelling, and language with the only significant difference (.04) in favor of the whites for the arithmetic category. Teachers' marks were the comparison criteria. From thirteen to thirty-seven Negro-white pairs in the higher five grades were compared in arithmetic, reading, spelling, language, science, social studies, and citizenship with no significant differences found. Again, teachers' marks were the comparison criteria. The authors comment that teachers' marks in the first three grades tended to consistently (but not significantly) evaluate the Negro children less highly than the whites, but that this was not the case in the five higher grades. Out of seven subjects compared in the five higher grades, Negro means tied white means in two cases (reading and language) and excelled whites in one case (spelling). The authors do mention that marking procedures differ after the first three grades and the inference is that the primary grades use slightly more subjective measures. On the whole, elementary school students in a long integrated western community do not significantly differ in achievement according to race.

Milner (1951) administered standardized interviews separately to 108 first grade children and their mothers in three Atlanta schools. It is inferred, but nowhere stated, that all students so interviewed were Negroes. Middle-class and lower-class families received approximately equal representation. Language I.Q. as determined by the California Test of Mental Maturity allowed the formation of a low scoring group (twenty-one lowest scores) and a high scoring group (twenty-one highest scores). (These are unfortunately small numbers which preclude confident generalizations.) All the high scorers were from the two middle-class schools, and twelve out of the twenty-one low scorers were from the third lower class school. Differences between high and low scoring groups were found at the .05 level and below using the chi-square test of significance. The high scoring children: (1) were in a richer verbal family environment,

(2) had more positive emotional interactions with parents, (3) were less often punished physically, and (4) were not limited in imagination as much as low scorers. The mothers of high scorers significantly (1) started their day later, (2) left less time between breakfast and lunch, (3) emphasized self-responsibility for their children, and (4) were more educated. To counteract the apparent socio-economically caused language gap in the low scorers, the author recommends publicly supported preschool training centers to compensate for emotional, motivational, and verbal deprivation. As a lesser alternative, she suggests the necessity of a remedial reading program in the early grades for the more culturally deprived areas.

Ransom (1939) tested 263 children in two Atlanta schools on the Metropolitan Reading Readiness Test. Thirty-three percent of these entering first graders had scores too low for normal reading programs. Case study reports from the first grade teachers yielded the following factors as relevant to reading readiness: health, home conditions, limited preschool experience, mental age, language experience, muscular coordination, short interest and attention span, and feeble-mindedness. The author suggests the following corrective measures for immediate use: physical corrections (glasses, dental care, etc.), new pleasurable experiences, rhythm in music and play, and games or stories encouraging language development. Separate reading programs are recommended for the slower children, e.g., programs emphasizing sound over sight.

Schultz (1958), using fifty Florida Negro ninth graders, assigned them to a high achievement category and fifty Negro ninth graders from the same county were assigned to a low achievement category. Both assignments were based upon scores on the Iowa Test of Educational Development. Both high and low groups rated above the sixteenth percentile on the Iowa School Ability Test (to eliminate the ability factor from analysis). Comparisons were made on the basis of school records, and no statistical significance tests were made. The median age of the high achievement group was one year younger. The high achievement group showed more instances of: less school days absent, living with two parents, less children in the family, both parents employed as skilled labor, and both parents having a higher education. Through these results, the author links Negro achievement and lack of achievement, given normal ability, to the education and socio-economic level of the parents. Schultz predicts that as the incidence of Negro education increases, its effect will be observed in the greater achievement of the children. The mechanism postulated is identification with the parents' achievements, goals, and values.

Intelligence scores derived from the California Test of Mental Maturity and achievement scores derived from the Stanford Achievement Test (Intermediate Battery) were determined for 670 Oregon pupils by Scott (1963). The achievement tests were made at the beginning of grade 5 and at the end of grade 6. Achievement means were above national norms in all subtests. The Pearson Product-Moment Correlations between intelligence scores and the four subtests of reading, arithmetic reasoning, social studies, and science achievement were .239, .358, .338, -.031, respectively. A gain in reading achievement correlated with subtests in arithmetic gain, social studies gain, and science gain was .224, .231, .076, respectively. Wide individual variation was observed. The author concludes that improved reading ability leads to improved ability in other disciplines and that reading skills are essential to any curriculum.

Willis (1939) selected 112 Negro children and 112 Caucasian children from one Nashville Junior High School to determine the effects of a ten-week remedial reading program by race. Selection was limited to seventh graders with an I.Q. (Kuhlmann-Anderson Intelligence Test) between 80 and 115 and a reading school grade (Stanford Reading Test, Form V) of from 4.0 to 9.5. The Caucasian children had a higher mean I.Q., a lower median age, and a superior reading environment (more books in the home, larger school library). Differences in the Ophthalmograph test administered before and after the remedial session showed significant improvement for both races with the Caucasians showing significantly more improvement than the Negroes. It is concluded that "an adjustment" should be made in the amount of reading materials offered the children (inferring that the Negroes need more) and that the data indicate "that there should be a differentiation in the course of study of the white and Negro children at the seventh grade level."[6]

Negro and white segregated schools in Nashville, at least at the seventh grade level, could both benefit from more enriched reading programs with the Negroes being in more need of this than the whites. Because the two races studied came from separate schools with differential resources, the conclusion that one race's greater reading achievement indicates inherent differences is not justified.

---

[6] L. J. Willis, "A Cognitive Study of the Reading Achievements of White and Negro Children," Peabody Journal of Education, November, 1939, 170.

Section 3: Cognitive Deprivation

The published literature touching on cognitive deprivation, while few in number, compensate for low frequency with richness in ideational quality. These contributions may be schematicized as follows:

- I. Personal Characteristics
    - A. Emotional atmosphere
    - B. Lack of teacher interest
    - C. Social deprivation and restrictions
- II. Critical Age Period
    - A. I.Q. spread
    - B. Educational facilities for deprived children
- III. Perceptual Deprivation Experiments in the Laboratory
    - A. Lack of cognitive deprivation
    - B. Importance of cognitive deprivation

I. Personal Characteristics

The enrichment programs mentioned in the preceding section showed relative success in raising the achievement level of the school children exposed to such programs. Deprivation forms the other side of the coin and is, the literature, suggests, the more important side. Brazziel and Terrell (1959), for example, reported a first grade class receiving abundant interest and encouragement to reach the fiftieth percentile of an intelligence test after seven months while three control classes receiving supposedly luke-warm attention and interest fell between the thirteenth and sixteenth percentiles. Thus an enriched emotional atmosphere secured average performance but slight deprivation of teacher interest tremendously depressed the measured intelligence.

This emotional deprivation on the teacher's part with its apparently devastating effects has been observed to be more frequent with selected groups of children. Deutsch (1960) noted that the teacher of Negro children often reinforce negative self-images in their students by their verbal behavior.

The social deprivation and restriction inherent in most institutions may also hamper a child's intellectual development. Green and Zigler (1959) reported retarded performance on monotonous tasks to occur with institutionalized retarded children but not with non-institutionalized retarded children and normals.

II. Critical Age Period

There also seems to be evidence for a critical age period during which the effects of deprivation may be maximized. Jackson (1958) puts this time period between nine months and kindergarten age as judged by the jump in I.Q. spread. Levine (1962) suggests that the crucial time for developing the capacity of environmental interpretation, symbolism, and language is between the ages of 2 and 4. He recommends educational facilities for lower socio-economic class children who might otherwise be deprived of adequate stimulation from their surroundings during these critical years. Milner (1951) (discussed in the preceding section) also advocates pre-school training programs for emotionally deprived children.

III. Perceptual Deprivation Experiments in the Laboratory

Bruner (1961) takes the deprivation problem out of the past necessary monopoly of field experiments by connecting perceptual deprivation experiments performed under the close control of the laboratory with the cognitive deprivation occuring daily in the lives of thousands of children. Lack of cognitive deprivation, Bruner maintains, is prerequisite to a child's capacity for adaptive inference in dealing with his environment. Deutsch, Brazziel and Terrell, and Green and Zigler have pointed to the importance of cognitive deprivation via a child's teacher or his institutional surroundings.

Social and cultural deprivation's effects, then have at last been touched upon. Educational deprivation's effects have been neglected. Research must move quickly to catch up with the flood of the suggested implications of cognitive deprivation.

Cognitive Deprivation: Studies Cited

Brazziel and Terrell (1959) report that a first grade class of twenty-six Negro children, entering school for the first time, was given abundant attention by their teacher in an attempt to off-set the assumed handicap of culturally impoverished homes and to develop a stronger readiness to learn. The teacher concerned herself with parents, staff, and every part of the child's life. Three control classes of similar size were taught by different teachers. Although the control conditions were never given, it is inferred that they lacked teacher interest at the level of the experimental group. T-tests at the end of six weeks showed significantly higher (.01) total reading readiness for the experimental group over the control group on a Weekly Reader scale. At seven months, the Detroit Intelligence Test rated the experimental group at the fiftieth percentile and the control groups at the thirteenth, fourteenth, and sixteenth percentiles.

The study suggests that lack of teacher interest in first grade students significantly depresses learning readiness, and abundant interest may increase it to normal or above.

Bruner (1961) postulates that perceptual and cognitive development are essential processes of differentiation. Gibson's view is cited in which continued contact with a rich sensory environment is considered essential to the development of differentiated spheres of activity and sensory modalities. Bruner elaborates on this, insisting that early deprivation not only robs an organism of the opportunity to construct internal models of the environment, but also prevents the development of "efficiency strategies" for evaluating information and for coping with the environment. Normally rich environments provide the opportunity for "strategic" trial and error. Dependent upon the formation of adequate strategies is the capacity for inference. Or:

> "Inference depends upon the establishment of rules and models, and it also depends upon the development of strategies for arriving at rules and models. I have proposed in this paper that early experience with a normally rich perceptual environment is needed for such learning--that deprivation prevents it."[7]

Bruner considers this sensory point of view to have bearing on social situations, i.e., cultural or educational deprivation: "It would not be unreasonable to guess that social contact provides a symbolic analogue or vicar for sensory intake."[8] Thus, Bruner supports the notion that sensory deprivation and social isolation theoretical frameworks may apply to cultural deprivation phenomena and to the extent they do, offer a wealth of controlled experiments to the field.

Deutsch (1960) conducted a study investigating the effects of racial background and social class membership on the school achievement of Negro and Caucasian elementary school students. It was found that teachers reinforce negative self-images of Negro students by their verbal behavior in the classroom. The expectations of many students in Deutsch's sample were those of cold and rejecting academic environments. Although some effort was made to control social class influences, equality of status was probably not achieved due to a lack of comparability of samples.

---

[7] Jerome S. Bruner, "The Cognitive Consequences of Early Sensory Deprivation," in Sensory Deprivation, Harvard University Press, Cambridge, Mass., 1961, 204.

[8] Ibid, 206.

Green and Zigler (1959) using groups of normal, retarded-non-institutionalized (RN), and retarded-institutionalized (RI) children had them play a simple, monotonous game until satiated. The subjects were three groups of ten boys each, all matched on mental age (seven years). Two retarded groups were also matched on I.Q. (68 and 69) and chronological age (ten years). Normal group mean age was seven years; I.Q., 108. Length of institutionalization was: mean--three years, range: from two to six years.

One-half of the stratified sample in each group played the two highly similar parts of the game in a support to non-support reinforcement sequence. The sequence was reversed for the remaining one-half of the stratified sample. Performance of the normal and retarded non-institutionalized stratified sample was quite similar but different from that of the retarded institutionalized stratified sample. A motivational hypothesis emphasizing social deprivation was used to explain results. However, conditions of social deprivation in the institution are not specified. The authors conclude that social deprivation differentiates retarded performance from normal performance in seven-year-old boys on monotonous tasks.

Jackson (1958) discusses the scientific controversy over the role of heredity versus environment on intelligence and achievement. References are cited indicating that race as such has no significant hereditary effect on intelligence. A McGurk study as presented in a Johns Hopkins Lecture (1957) is repudiated on the grounds that its conclusion of Negro racial intelligence inferiority fails to take environment into account. Achievement of northern versus southern Negroes is given as an illustration of the intelligence depressing effects of cultural deprivation in the environment. In conclusion, a study is quoted which indicates that ninety percent of the developmental scores for nine-month-old infants fell within a small average range (Knobloch, 1956, A.A.A.S. report). Since I.Q.'s are usually spread over a much wider range as tested in kindergarten and first grade, it is inferred that the environment from infancy to school age is the crucial variable in shaping "intellectual potential." Race and all other hereditary factors must take second place, if any, in order of causal relationship to intelligence or achievement.

Levine (1962) draws a distinction between "alleviation" of minority disadvantages (all classes raised in status) and "reconstruction" (all disadvantaging conditions eliminated). His discussion argues in favor of the latter, pointing to several sources which attempt to pinpoint the causality of these disadvantaging conditions. Pre-school cultural deprivation, especially as observed in Negro children, is discussed as a primary cause. The following quote from a Bruner publication (On Knowing: Essays for the Left Hand, Cambridge: Harvard University Press, 1962) is typical: "It may well be that early sensory and intellectual deprivation prevents the kind of intellectual and emotional unfolding that nourishes early learning and makes later learning possible."[9]

Referring to studies in human ontogeny, the period between the ages of 2 and 4 are given as the crucial time for developing the capacity of environmental interpretation, meaning symbolism and therefore language. Negro performance deficits on I.Q. tests may then be due not entirely to the middle class focus of the tests, Levine suggests, but may also be due to early cultural deprivation during a critical period. He suggests extensive pre-kindergarten facilities especially for the poorest socio-economic areas as a remedy but is dubious as to the national acceptance of his suggestion.

---

[9] Daniel U. Levine, "City Schools Today: Too Late with Too Little?" Phi Delta Kappan, 1962, XLIV, 82.

Section 4: Aspirations, Attitudes, and Group Membership

I. Factors Influencing Occupational and Educational Aspirations
    A. Personal characteristics
        1. Race
        2. Self acceptance
        3. Realistic awareness of opportunities available
    B. Context characteristics
        1. Socio-economic class
        2. Social status
        3. Rural or urban location
        4. Childhood relationships
        5. Childhood deprivation
        6. Amount of schooling
        7. Amount of occupational experience while not attending school
        8. Influence of peer members
II. Values and Attitudes, Morale, and Social Disorganization Among Negroes
    A. In the nation as a whole
    B. In a stressful situation

I. Factors Influencing Occupational and Educational Aspirations

The thesis that social values are related to levels of aspiration and levels of achievement is supported and documented in several research studies. Hyman (1953) for example, has demonstrated that because the lower classes do not readily accept success goals and believe in their accessibility, their social aspirations and their consequent achievement is lower than that of other classes. These findings are corroborated by the research of Rosen (1956) who also reports a significant relationship between value orientations and educational aspirations. Rosen studied a sample of 120 white subjects ranging in age from 14 through 16 selected randomly from five social class stratum. The sample was drawn from the entire male population of sophomores in two large public high schools in the New Haven, Connecticut, area. Achievement motivation was measured by a projective test (TAT Variant), and value orientation was determined by a direct questionnaire. The author's hypothesis that "social strata differ from one another in the degree to which the achievement motive is characteristic of their members"[10] was supported by the data. Rosen found that members of the middle class "tend to have considerably higher need achievement scores than individuals in the lower social strata";[11] that cultural factors, "values", are related to mobility, and that these values do differ from culture to culture. Here, the sample of middle-class sophomores was more highly achievement-oriented than the lower class. The differential in educational aspiration was partially a function of value orientation differences.

---

[10] B. C. Rosen, "The Achievement Syndrome: A Psycho-Cultural Dimension of Social Stratification," American Sociological Review, 1956, Vol. 21, 205.

[11] Ibid, 206.

Bloom, Whiteman, and Deutsch (1963) studied 292 pairs of approximately equal numbers of Negro and white parents and children (grades 1 through 5) representing similar proportions of lower through upper lower to middle social classes. Both race and social class were evaluated as separate factors determined by social environment. The authors found that Negroes reported higher occupational and educational aspirations for their children than did whites, and that Negro children themselves reported significantly higher occupational aspirations than did white children.

The relationship between social status and levels of aspiration has been studied by Kahl (1953), Smith (1952), Riessman (1953), and Sewell, Haller, and Strauss (1957). The findings of each of these research studies has supported the thesis that there is a significant relationship between levels of social aspiration and social status. Kahl (1953) investigated the social influences which might explain the choices of twenty-four boys from working class parentage who had the necessary intelligence to attend college, but of whom one-half did not choose to do so. Instead, this latter group planned little or no education beyond high school graduation and were content with the prospect of the lesser occupations that might be open to them. These twenty-four boys were drawn from a larger population of 3971 boys in their sophomore and junior years in metropolitan Boston public schools (questionnaire data being available on all). The twenty-four were studied via interview analysis in an effort to determine what social factors were influencing their choices. The interviews disclosed that although there was a general way of life belonging to the common man's social class, some members were content with this style and others were not; discontented parents tended to train their children from the earliest school years to take education seriously as a means to social mobility. Only the children who had internalized these parental values were sufficiently motivated to achieve a higher goal. The twenty-four boys tended to view the occupational system from their parents' perspective; the occasional boy who differed had obtained his ideas from a friend, never from such abstract media as books and movies.

Smith (1952) investigated 265 Negro high school seniors attending school during the year 1950-51 in Durham and Charlotte, North Carolina, and Richmond, Virginia, in an effort to discover the relationship between the students' written wishes regarding family and social welfare, material possessions, vocations, education, and social class status. Specifically concerning educational and occupational aspirations, he found that 60 percent of the lower-lower class and 28 percent of the upper class wished to terminate their education with high school graduation. Written wishes concerning vocations were positively correlated with social class: more upper-middle and lower-middle class seniors aspired to professional jobs, while members of the lower class were indefinite about their vocations, merely wishing for a "good job." Those aspiring to professional occupations ranged as follows through the four social classes:

Middle-middle	58%
Lower-middle	62%
Upper-lower	34%
Lower-lower	32%

Since the majority of our sample belong to the upper-lower and lower-lower classes, it is believed that Smith's findings may be pertinent to interpreting this data. However, Smith's study was concerned with an urban population whereas the members of this population are predominantly rural.

Riessman (1953) studied three groups of white, male, native-born adults in an effort to point out some of the characteristics of the relationship between class and aspirations. The author randomly selected and interviewed male heads of households in Evanston, Illinois, all the policemen attending the technical school there but coming from varying parts of the country, and he polled by mailed questionnaire members of the Junior Chamber of Commerce. The measurement of aspirations was based upon the occupational prestige scores as derived from the North-Hatt scale of occupations, and included not only the occupational level of achievement of the subjects but also that of their fathers. Riessman concluded that successful achievement in the past does not necessarily mean higher aspirational level in the future. Here, age is a factor and among the older men of the first group, the high achievers have established a momentum of past striving that carries over into the future. Among the younger men, however, the lower occupational achievers expressed higher levels of aspiration. Riessman found some relationship between social class and occupational aspirations, but determined that orientations other than success and mobility can be dominant for some people. For example, the members of the Junior Chamber of Commerce ranked high in social status, but did not show especially high levels of aspiration.

Sewell, Haller, and Strauss (1957) tested the general hypothesis that levels of educational and occupational aspects of young people, both male and female, are associated with the social status of their families, when the effects of intelligence are controlled. The authors selected data from a one-sixth random sample of all non-farm high school seniors in public and private schools in Wisconsin during the school year 1947-48. Data for educational aspirations was taken from the responses to a series of questions concerning the education the students planned to obtain after graduation. The data for occupational aspirations were taken from a question concerning the vocation the students planned to enter. Social status, as measured by the prestige of parental occupations, was the dependent variable, and these responses were assigned North-Hatt occupational prestige values. The students were then arranged into five equal sized rank-ordered parental occupation prestige categories. The control variable, measured intelligence, was treated in a similar manner, scores being taken from the Hermon-Nelson Test of Mental Ability. He found that among females there is a significant positive relationship between level of educational aspirations and parental social status, and this relationship is independent of any correlation between intelligence and either of these variables; females from high status families more frequently choose high level occupations than do those from lower status families, but the relationship is not so consistent as was the relationship between status and aspiration to attend college; among males, high level educational aspiration or college plans are more characteristic of those from high status families and of those of high intelligence, 90 percent of the subjects from high status families and of high intelligence plan to attend college in contrast to only 32 percent of the subjects from high status families are more apt to possess high occupational aspirations than are those from lower status families. The results of the above study might be more significant had it been possible to secure data on subjects from farm families, since this group does constitute a fairly large community when the State of Wisconsin is considered.

It can be seen from the above summary of studies that all of the research has supported the thesis that there is a significant relationship between levels of social aspiration and social status. (Since the quantity and quality of available educational facilities tends to vary from one locale to another throughout the country, from urban to rural areas, and within particular communities, and these areas often differ somewhat in social class and ethnic composition, the presence or lack of adequate educational facilities would tend to influence occupational and educational aspirations to a large degree as would social class alone, in that the school is an important transmitter of values and a vehicle of awareness and experiences.) Not only would social class and ethnic composition affect values and orientations of the school, but the adequacy of the school system itself would partially determine the values and occupational and educational aspirations internalized by their students.

Smith and Abramson (1962), Rosen (1956), Adler and Horney (1962), and Sewell, Haller, and Strauss (1957) have each conducted studies and/or produced hypotheses that should be carefully considered in reference to vocational aspirations, the basis for the choices made, and the realism of the expressed preferences. Smith and Abramson (1962) question whether mobility aspiration is "an effort to escape from, or compensate for, a depriving environment, or whether it arises from an environment that is supportive."[12] Sewell et al. (1957) found a significant relationship between social status and intelligence and between social status and educational and occupational aspirations. Insecurity which is translated into neurotic striving for power, recognition, and success was proposed by Adler and Horney (in Smith and Abramson, 1962) to be based upon poor interpersonal relationships in early childhood. Smith and Abramson (1962) repeated some of Rosen's work comparing the mobility aspirations of whites and Negroes, matching thirty-three Negroes and thirty-three whites on the basis of age, sex, intelligence, and social status, with subjects drawn from 200 members of the sophomore class in an Albany, New York, high school attended by students from a racially mixed, low-income neighborhood. Achievement motivation was measured by Cards 2, 8, 1, and 7 of the McClelland TAT series, and value orientation was measured by the five-item scale used by Rosen and adapted from Kluckhohn's schema. Educational-vocational aspirations were determined from student replies to a personal interview. The authors found that Negro students have higher educational and occupational aspirations than whites, but that the white students have a more achievement-oriented value system. However, their study on the whole indicated no consistent association between mobility aspiration and the independent variables of race and family experience. These authors suggest that the higher educational and occupational aspirations of the Negro student do not reflect essentially a higher achievement motivation *per se*, but rather reflect a desire to escape the implications of their ascribed status, and that these aspirations are often of a fantasy nature instead of being realistic. Gray, as cited in Smith and Abramson's study, concluded in relation to occupational aspirations, that the Negro male indicated more preference for the professions than did the white male, but it appeared that Negro children are more unrealistic in their vocational choices. It is noted here that Gray conducted her study on Negro primary school students in Tennessee and North Carolina, and it is possible that among this younger age group vocational choice might obtain, whereas in an older group there might be a more realistic relationship between opportunity and ability, and desired occupation.

---

[12] H. P. Smith and Marcia Abramson, "Racial and Family Experience Correlates of Mobility Aspiration," *Journal of Negro Education*, 1962, Vol. 31, No. 2, 117.

A study by Caliver (1937) investigated the occupational status and amount of education obtained by 20,260 Negro high school graduates and non-graduates from thirty-three states and the District of Columbia who had completed or dropped out of school during the period from 1926 to 1935. The author found that relatively fewer male non-graduates in the small rather than in the large communities left school on account of "failure" and "desire to make money", and relatively more dropped out of school because they were "needed at home" or because of "poor health". "Lack of interest" accounted for about one-seventh of those who dropped out of school. Relatively more non-graduates than graduates were never employed and relatively fewer were working when interviewed. Since high school graduates were given preference to non-graduates in occupations and most of the sample did not have a high school diploma, this factor would partially account for lack of gainful occupation at the time. Caliver also found that a larger number of graduates than non-graduates expressed a preference for other than professional occupations. He concluded that a more realistic outlook relating capacity and ambitions obtains among those who are out of school and have had more work and life experiences, and he also suggests that the high incidence of job dissatisfaction in his sample arises from a need for a more realistic relationship between these two factors. Also operative in Caliver's study of the employment picture was the fact that schools and organized agencies aiding employment were especially lacking to Negroes.

Further substantiating the hypothesis that social class rather than race is a determinant of vocational and educational aspiration, is a study by Haller (1960). Haller investigated 109 seventeen-year-old farm boys in Lenawee County, Michigan, in an attempt to discover an explanation for the farmers' lower level of educational and occupational aspirations in highly industrialized urban regions with excellent schools. The explanation seemed to be that farm boys tend to accept farming as the normal occupation for themselves, and form their self-concept on this basis, hence, do not choose other occupations or take advantage of available educational facilities unless some other strong factor is operative in changing their self-concept. Only those farm boys who perceive farming as inaccessible to them who are more highly motivated to other occupations by their parents, or who are themselves more inquisitive and self-reliant, will develop a self-concept of non-farmer and "tend to utilize the information available in the area to develop the higher levels of aspiration needed for successfully entering urban work."[13] Haller's study was conducted among a Northern white population rather than among southern Negro rural members non-adjacent to large industrial areas. However, the same internalization mechanism, the same procedure by which the concept of self is attained, and the consequent formation of goals on the basis of this, would appear to be operative in producing a predominance of lower occupational aspirations in any cultural group.

---

[13] A. O. Haller, "The Occupational Achievement Process of Farm-Reared Youth in Urban Industrial Society," Rural Sociology, Vol. 25, No. 3, September, 1960, 321.

Another factor involved in the choice of vocation or the motivation to obtain commensurate education would be the influence of peer members. Haller and Butterworth (1960) in another study investigated all seventeen-year-old boys in Lenawee County, Michigan, this population being representative of a full range of American social class levels. The authors hypothesized that peer interaction influences occupational and educational aspirations of American adolescent boys and tested this hypothesis in line with factors which were thought to be influential in forming friendships and in developing occupational levels and educational aspirations: (1) social class status of the subject's family; (2) measured general intelligence of the subject; (3) degree to which parents desired high social achievement for the subject. Although the results of the study were not conclusive, the above hypothesis is tenable.

It is believed that the manner in which a child evaluates himself and his capabilities would tend to exercise some influence regarding the occupational aspirations he maintains. A study by Trent (1957) investigating 202 Negro children ages 9 to 18 (112 males and 90 females) in Brooklyn and Manhattan, indicated that social pressures, unfairness, and hostility from the larger community may render it more difficult for the Negro to evaluate himself and others realistically. Self-acceptance was measured by a sentence completion test originally designed by Cruikshank. Trent found that children who were most self-accepting expressed a more positive attitude toward both Negroes and whites than did those who were least self-accepting; the ambivalent self-group expressed significantly more positive attitudes toward both whites and Negroes than did the least self-accepting group, and that there was no significant difference between the most and the ambivalent self-accepting groups in attitudes toward Negroes and whites. In conclusion, Trent maintains that "although the data of this study do not indicate whether perception of self determines perception of others or whether the reverse holds, clinical experience indicates that a child develops an awareness of "I" before an awareness of "we" or "they". Accordingly, we may interpret these data as suggesting that if a child does not accept himself as a person of worth or value, he may tend to perceive groups, including his own, in a derogatory and hostile fashion."[14] Although Trent does not conclude this, and does not relate self-concept to occupational and educational aspirations, we believe that the non-self-accepting child will not be a high achiever, nor will he aspire realistically to high level occupations when he does not perceive of himself as "worthwhile" or "deserving".

Before members of a community are able to take advantage of educational opportunities and raise their own aspirations both educationally and occupationally, these opportunities must first be present, and secondly, the aspirant must be aware of their availability. Anderson (1955) studying inequalities of schooling in the South, utilized United States Census data for 1940 and 1950. In this study, the twenty-five- to twenty-nine-year-olds of 1940 were compared with those of the same age in 1950, and with a third group, those fifty- to fifty-four years old in 1940, on the basis of school grades completed, region of residence, and race. The author found that inequalities between different areas, between rural and urban residents, and between whites and Negroes existed, and that the alleviation of such inequalities is being unevenly effected, although educational inequalities on the whole are declining. Negro residents of southern cities have gained less than the whites in urban areas, but the greatest lag in equal educational opportunities appears to be among rural whites. Anderson also noted that more Negroes than whites and more rural than urban young people do not complete the fifth grade, and that elimination of Negro illiterates is progressing more rapidly in urban areas than in rural. Also regarding awareness of opportunities, Amos (1960) studied sixty-four ninth-grade girls and boys in a Negro high school in Virginia. He administered a questionnaire listing seventy-five occupations and asking three questions regarding each occupation, in substance, (1) do you feel that a Negro, if qualified, would have an opportunity for employment in this occupation in Washington, D.C.? (2) in the United States?, and (3) in what quantity, few or many, do you feel that Negroes are employed in this occupation in the United States? Amos found that girls are more aware of the occupational situation as it exists for Negroes than are boys; that both sexes are more conscious of the opportunities for their race on a nation-wide scale than on a local level; that both boys and girls, as a group, have an unrealistic idea of the number of Negroes employed within a particular occupation. Amos' study did not attempt to present conclusions that would be applicable to the Negro population as a whole. However, his results may be taken to indicate that if members of a community are unaware of existing occupational opportunities, their choices for vocations might be unrealistic or limited in scope. It would seem that within a non-forward looking school system, lack of awareness of opportunities would be more prevalent and would tend to limit the choice of vocations to those accepted by members of the local group or for lack of knowledge regarding the necessary prerequisites for a given vocation, would promote an unrealistic perspective in choice formation.

---

[14] Richard D. Trent, "The Relation Between Expressed Self-Acceptance and Expressed Attitudes Toward Negroes and Whites Among Negro Children," The Journal of Genetic Psychology, 1957, 91, 30.

The attitude of the Negro child toward schooling, himself, and other races, and the attitude of other people toward him are important if an assessment is to be made of the factors operative within a particular social situation. Pittman (1952) studied 278 sixth grade Negro pupils from small schools in a city in central North Carolina. The results obtained from an attitude-toward-schooling gauging instrument, a reading test, and an intelligence test did not support the hypothesis that intelligence, achievement in reading, and sex are associated with attitudes toward schooling. The author believes that the position is tenable, however, that "the environmental handicaps faced by Negroes definitely and significantly influence their attitudes and vitiate the suitability for them of many scientific measuring tools which have been constructed for the more favored group in the population."[15]

---

[15] Joseph A. Pittman, "A Study of the Suitability of an Attitude-Gauging Instrument for Assaying the Attitude-Toward-Schooling of a Group of Sixth Grade Negro Pupils," Journal of Negro Education, Vol. 21, 1952, 147.

Regarding attitudes toward self, available evidence generally indicates that the Negro child is aware of racial differences at an early age and tends to prefer a light skin. Dai (1953) utilizing the "case history" method of investigation, collected undirected autobiographies from eighty Negro youths, ranging in age from 17 to 25. Each autobiography was supplemented by one or more personal interviews in which some free association and dream analysis was employed. Dai hypothesized that self-concept is most crucial in determining an individual's behavior, that this self-concept has a social reference, and that an individual's self-concept is acquired. Hence, it follows that the type of self-concept acquired by the individual depends on the personalities of those with whom he associates. The cultural values and patterns he learns to accept as a model for his own activities stem from what significant others in his environment think of him, and are the means by which socialization is effected. Dai concluded that class restrictions brought to bear on the Negro youth produces among other disorganizational elements, subsequent lower-class families, broken homes and their consequent maternal dominance, aggressive actions, and an extraordinary emphasis on social status.

Morland (1962) also offers the possibility that Negro children prefer for themselves those attributes associated with Caucasians, such as a light skin. Morland administered a picture test showing Negro and Caucasian subjects in various circumstances to 407 Negro and white nursery school children in Lynchburg, Virginia. He found that white subjects of all ages, considering ability and status, tend to identify with members of their own race whereas the Negro children of each age category and ability level identified most frequently with members of the other race. This has social implications, the author believes, in that as desegregation proceeds in the

South, Negro children, because they have incorrectly identified themselves will be faced with difficulties in adjustment, and that this will have an adverse effect on them personally and on their relationships with white children.

Amos' sample (1952) was composed of an equal number of Negroes and whites, and seventy-five teachers, in three Flint, Michigan, schools. He studied 150 ninth-grade pupils with parentage of mixed professions and labors in an attempt to determine the accuracy of Negro and white children's predictions of teachers' attitudes toward Negro students. The data revealed that the white pupils predicted more accurately the attitudes of their teachers, with the Negro students estimating the teachers' attitudes as being more prejudiced. The Negro students evidenced a strong feeling of rejection, and they estimated a wider distance between their own self-concept and what they believed their teachers thought of them. Amos then collected data for two equated groups of Negro and white factory workers' children and found no significant differences between Negroes' and whites' estimates of their teachers' attitudes. These findings indicate that social class might be more important than race in determining pupils' attitudes toward teachers.

Greene (1954) conducted a study among white and Negro students in a large segregated southeastern school system, comparing school morale of both ethnic groups. Greene administered instruments designed to measure student reactions related to school morale to a representative sample of 443 white and 128 Negro high school students. He found that Negroes had significantly higher scores than did whites on six estimates of status including leadership, popularity, acceptance by teachers and family, and that Negro students presented a more favorable adjustment to school than did white students. He also found that "the typical Negro student was more likely than the typical white student to consider his general environment as being hostile toward or indifferent about his personal welfare."[16] Otherwise the Negro students reported "more exemplary overt school behavior than did white students."[17] It is noted that this data was collected in what is presumed to be segregated schools, and it is wondered if these same results predominantly favorable to the Negro in his school adjustment and behavior would obtain in a school system composed of mixed ethnic groups of students and teachers. In other words, would the social and scholastic pressures be intensified and hence possibly producive of frustration and lack of adjustment in a mixed school?

II. Values and Attitudes, Morale, and Social Disorganization Among Negroes

In assessing the social factors existent in a community, the values which the members of the group hold should be given careful attention. Eagleson and Bell (1945) and later Gray (1947) have conducted studies designed to determine what values Negroes perceive as most important. Eagleson and Bell (1945) tested 164 Negro college women to determine the order of importance of six values of the Allport-Vernon Study of Values and to show how these data compare with the results from white students and other Negro students. The authors found that both Negro men and women emphasize the religious value most and the aesthetic value least. White women, members of the "dependent", "weaker sex", also rank religious values highest, but rank aesthetic values second. Eagleson and Bell believe that the ranking of religious and aesthetic values, highest and lowest respectively, is an effect of the Negro's culture and a condition of his life. The object of social pressures, he turns to religion; not having had contact with art, music, literature, he does not learn to appreciate their beauty. Regarding white women, much the same feeling of dependence and subjugation this time in relation to men rather than to the community is operative in directing them toward religion. Gray (1947) compared Eagleson and Bell's data derived from the scores of the Allport-Vernon Study of Values of 164 Negro college women with groups of white college women from two southern colleges. From Florida State College 120 women and from George Peabody College 105 women were tested according to the aforementioned value scale, and the scores were compared with Eagleson and Bell's study. Gray also found that religious values were ranked first for both college groups. Social values were ranked second. The deviation from the norm for the two white groups is greatest in religious value where the deviation is positive and for the aesthetic value where the deviation is negative. Eagleson and Bell also found this same type of deviation for aesthetic value. Gray concludes that the ranking of values in this manner derive from conditions which appear to be operative not only among groups of Negro college women but among similar white groups as well. From this, we might suggest that values are not necessarily based upon race, but rather upon social class.

---

[16] James E. Greene, "A Comparison of the 'School Morale' of White and Negro Students in a Large Southeastern School System," Journal of Negro Education, Vol. 2, Spring, 1954, 137.

[17] Ibid., 137.

Hughes and Thompson (1954) compared the value systems of southern Negroes and northern white youths. The authors analyzed 1269 themes written by both groups entitled: "Things I Would Like to Change in My Way of Living," and grouped them according to sex, race, age, and locale. They randomly selected twenty-two themes from each group which gave a total of eighty-eight essays. These were then analyzed by the procedures recommended by White in his version of value analysis. It was found that both northern white students and southern Negro students place a similar amount of emphasis on the great majority of values. The greatest differences occurred in the area of justice and family love, happiness and group unity. "The emphasis upon group unity suggests that the southern Negro has a strong desire to be accepted as an essential part of his community. The Negro group tended to identify strongly with their own ethnic group and appeared to be quite egotistic."[18] Justice and fairness to the Negro recurred again and again as a preferred value. Northern whites had a stronger identification with the family and reported high on the happiness value.

In respect to Negro morale and group identity, especially during a period of prolonged stress and pressures such as that evidenced in Prince Edward County, there exists a paucity of available studies. Clark (1942) has discussed at length the attitudes of the Negro during a period of national emergency (World War II) and suggests that frustration, complicated by bitterness and resentment, is a basic element of Negro morale. These elements are not always clearly evident, however, and analyses of Negro morale often indicates confusion of ideas and feelings. Since differences of opinion will exist within the Negro population, this author concludes that one cannot generalize regarding the morale of the Negro population as a whole.

---

[18] Julian Hughes and George Thompson, "A Comparison of the Value Systems of Southern Negro and Northern White Youth," Journal of Educational Psychology, 1954, Vol. 45, 308.

In contrast to the opinions of Clark, Rose (1949) in his discussion of the development, present status, and future direction of group identification (morale) among minority peoples, especially among the American Negro population, maintains that Negro "morale" or solidarity has developed over the past forty years until it is now an important force in American Negro life, and as the political, educational, social, and economic obstacles to its progress are dissolved, Negro group identity will continue to grow. Community institutions allow much personal contact among Negroes and are important contributors to group identification. Negro schools consciously teach various attitudes which enhance this feeling of solidarity. Negro churches strongly promote Negro group identity, and the church building is often the only place in which, in the South at least, Negroes can congregate. Secondly, Negro ministers frequently become race leaders. Negro businessmen and professional people are "propagandists for race pride," hence, promote Negro morale. Both of the above treatments of Negro morale possess elements which should be reassessed and evaluated as applicable to the peculiar situation being considered in the present study of socialization and social action in this project.

There exist few studies conducted in an effort to determine the extent and value of Negro community leadership as such, but Nesbitt (1952) has published a descriptive article analyzing the role of the Negro race relations expert and his lack of acceptance by the Negro community, maintaining that the Negro leader arising from the matrix of his own locale is more apt to be regarded as a person of worth and consequently able to function more readily and effectively within his group, whereas the Negro leader or social worker originating exterior to the community and often operating under the auspices of national or government agencies is more apt to be considered by members of his race as an outsider, incapable of effecting a change in a community situation. Davis (1954) has also published a book decrying the lack of cooperation among members of the Negro community, the complacency in Negro religious, fraternal, and civil life, and the failure of Negro ministers to become effective and active members of their community. The outlook of Davis and Nesbitt appears to be somewhat contrary to that of Rose, and certainly the extent and nature of present Negro leadership is a fruitful area for analytical evaluation and assessment.

Before leadership can arise in a community, a sense of responsibility must be instilled in its members. Zunich (1963) studying 508 six-year-old children in Texas compared lower and middle class youngsters. Zunich found that the development of responsibilities of a personal and home nature is dependent upon social class, and that the lower class children believe responsibilities should be assumed at a later age (in contrast to Davis) than do middle class children. Zunich does not consider Negro children as a discrete group, but his findings permit some insight into the situation as it applies to our own group under study in that these are predominantly members of the lower to lower middle socio-economic class. Somewhat akin to the development of responsibilities are the results from a child-rearing study conducted by Davis and Havighurst (1946). The authors investigated fifty mothers in each of four groups consisting of middle class Negroes and whites, and lower class Negroes and whites in Chicago. They found that, in general, middle class children are expected by parents to assume responsibilities earlier than are lower class children. In respect to race, the authors found that Negro and white middle class families of both races exhibit similar characteristics in such practices as child-rearing and expectations for their children. The findings appear to indicate that the differences in family practices in respect to children are more pronounced from the standpoint of class levels than from that of race. Hence, considered as a general pattern, the instilling of a sense of responsibility ultimately promoting community leadership may be no more or less operative among Negroes as compared to whites, but rather absense may depend upon the fact that the majority of southern Negroes are also members of the lower or upper lower social class.

An element directly related to community cohesiveness or the lack of it is disorganization in the family itself. Family disorganization among Negroes has been studied in detail. Hollingshead (1953) concluded that greater family disorganization exists among Negroes, than in general among lower socio-economic groups. Frazier (1950) in a descriptive work covering this subject, maintains that "family disorganization probably has been the most important social problem that has retarded the development of the Negro since his emancipation."[19] The lack of organization and direction in the Negro family affects the relations of Negro children to the institutions of the community, the most important of these being the public school. "The extent to which the students can acquire the knowledge and skills which it offers is determined by the cultural background of the students. Negro children from disorganized families often exhibit little interest in the knowledge and the skills provided by the public schools because it has little or no meaning for them in terms of their family background. In addition, children who have never been subjected to the discipline of normal family life find it difficult to conform to the routine and discipline required by the public school."[20] Other results of family disorganization are failure of Negro children to become socialized through the family; economic pressure because about one-fifth of the Negro youth must depend upon the earnings of the mother; juvenile delinquency; failure to develop a healthy personality because their emotional needs have not been provided for.

---

[19] E. Franklin Frazier, "Problems and Needs of Negro Children and Youth Resulting from Family Disorganization," Journal of Negro Education, 1950, Vol. 19, 269.

Dreger and Miller (1960), in reviewing the studies that have been conducted on the topic of Negro family structure, summarize that many of the differences between Negroes and whites regarding family disorganization are not due to race, but instead can be accounted for in terms of socio-economic class differences. Middleton and Putney (1960) studied Negro family structure from the standpoint of decision-making, matching ten couples from each of four groups of small southern city residents; composed of Negro and white college professors and Negro and white skilled workers, and administering questionnaires asking opinions on subjects of common family interest. The authors found that whites and Negroes, both professionals and skilled workers, on the whole, do not differ regarding decision-making in the family and are predominantly equalitarian. In families in which wives work, they found decision-making to be more patriarchal rather than less so, contrary to what one might expect in view of the greater independence of the working wife.

---

[20] Russell Middleton and Snell Putney, "Dominance in Decisions in the Family: Race and Class Differences," American Journal of Sociology, 1960, Vol. 65, 275.

Crime and delinquency, also stemming from social disorganization, is summarized by Dreger and Miller as follows: "The Negro crime rate seems to be consistently higher when a single overall breakdown (sic: of the available studies and data) is made by race. Only environmental factors are responsible for differential criminal or delinquent behavior,"[21] but the few comparative studies available do not necessarily support this opinion.

The effects of actual school closure on the normal existence of a large community has been studied by Campbell, Bowerman, and Price (1960) during the period in which the Norfolk, Virginia, public schools were closed in the fall semester of 1958. The authors interviewed and analyzed data from a random sample of 283 parents who had a total of 372 children in the schools affected by the closing. Questionnaire items included what the children did, what the adults and students believed, concerning the school closure and its implications in personal and family life. They found that in general, the closing of the public schools was felt to be a threat, that normal educational patterns were disrupted, that special educational arrangements were often too costly to permit the children to continue in school.

---

[21] R. M. Dreger and K. S. Miller, "Comparative Psychological Studies of Negroes and Whites in the United States," Psychological Bulletin, Vol. 57, No. 5, 1960, 393.

SUMMARY

This review of literature indicates that an individual's intelligence and achievement is not independent of a variety of personal and environmental factors. A number of studies show that American whites typically out-perform American Negroes on measures of intelligence and achievement, and reasons for the difference between the two groups are cited as being more related to changeable rather than fixed variables. A few studies indicate that educational deprivation depresses both achievement and intelligence.

A perusal of literature in the areas of aspirations, attitudes, and group membership, especially as applying to the Negro youngster, reveals that, in general, class status (and racial status insofar as this is a determinant of social class) is related to occupational and educational aspiration. Concept of self is also partially a function of class and racial status, as are values, attitudes, and beliefs, in that the individual is to a great extent the product of his environment and culture. Provided with the means for doing so, he can, however, modify his cultural inheritance as he transmits it. Hence, there always exists the possibility of change in not only the individual's relations to others of his own group and to those of the larger community, but also in his aspirations, life style, values, and attitudes. A study of the sociological content of the Prince Edward County Negro community may reveal where such changes are occurring and where they could occur to the betterment of the society as a whole.

REFERENCES

Adler and Horney, in Smith H. P. and Abramson, Marcia, "Racial and Family Experience Correlates of Mobility Aspiration," Journal of Negro Education, 31, 1962, No. 2, 117-123.

Anastasi, Anne and D'Angelo, Rita Y., "A Comparison of Negro and White Preschool Children in Language Development and Goodenough Draw-A-Man I.Q.," The Journal of Genetic Psychology, 81, 1952, 147-165.

Anderson, C. Arnold, "Inequalities in Schooling in the South," American Journal of Sociology, 60, No. 6, May, 1955, 545-551.

Amos, Robert T., "The Accuracy of Negro and White Children's Predictions of Teachers' Attitudes toward Negro Students," Journal of Negro Education, 21, 1952, 125-135.

Amos, William E., "A Study of the Occupational Awareness of a Selected Group of Ninth Grade Negro Students," Journal of Negro Education, 29, 1960, 500-503.

Arlitt, Ada Hart, "The Relation of Intelligence to Age in Negro Children," The Journal of Applied Psychology, 6, 1922, 378-384.

Bean, Kenneth L., "Negro Responses to Verbal and Non-Verbal Test Materials,' The Journal of Psychology, 13, 1942, 343-350.

Blanks, Augustus C., "A Comparative Study of Mentally Bright and Mentally Dull Negro High School Seniors (With Reference to Personality, Background, School Achievement, Interest, Ambition, and School Marks)" Dissertation Abstracts, 15, 1955, 1200-1201.

Bloom, Richard, Whiteman, Martin, and Deutsch, Martin, "Race and Social Class as Separate Factors Related to Social Environment," Institute for Developmental Studies, New York Medical College, paper read at the American Psychological Association, 1963.

Brazziel, William F., and Gordon, Margaret, "Replications of Some Aspects of the Higher Horizons Program in a Southern Junior High School," The Journal of Negro Education, 1963, 107-113.

Brazziel, William F. and Terrell, Mary, "An Experiment in the Development of Readiness in a Culturally Disadvantaged Group of First Grade Children," Journal of Negro Education, Winter, 1959.

Bruner, Jerome S., "The Cognitive Consequences of Early Sensory Deprivation," Sensory Deprivation, Harvard University Press, Cambridge, Mass., 1961.

Caliver, Ambrose, "Negro High School Graduates and Nongraduates: Relation of Their Occupational Status to Certain School Experiences," U.SS. Department of the Interior, Office of Education, Vocational Education and Guidance of Negroes, Washington, D. C., U. S. Government Printing Office, Bulletin No. 38, 1937, 107-113.

Campbell, Ernest, Bowerman, C., Price, D., "When a City Closes its Schools," Institute for Research in Social Science Monograph, University of North Carolina, Chapel Hill, 1960.

Clark, Kenneth B., "Morale Among Negroes During a National Emergency," in Civilian Morale, Goodwin Walson (ed.) Houghton Mifflin, 1942.

Clarke, Daniel P., "Stanford-Binet Scale "L" Response Patterns in Matched Racial Groups," Journal of Negro Education, 1941, 10, 230-238.

Coppinger, Neil W., and Ammons, R. B., "The Full-Range Picture Vocabulary Test: VIII. A Normative Study of Negro Children," The Journal of Clinical Psychology, 1952, 8, 136-140.

Curry, Robert L., "The Effects of Socio-Economic Status on the Scholastic Achievement of Sixth Grade Children," British Journal of Educational Psychology, February, 1962.

Dai, Bingham, "Some Problems of Personality Development Among Negro Children," in Kluckholm, Murray, and Schneider (eds.) Personality in Nature, Society, and Culture, New York: Knopf, 1953.

Davidson, Kenneth, S., Gibby, Robert G., McNeil, Elton B., Segal, Stanley J., and Silverman, Herbert, "A Preliminary Study of Negro and White Differences on Form I of the Wechsler-Bellevue Scale," Journal of Consulting Psychology, 1950, 14, 489-492.

Davis, Robert E., The American Negro's Dilemma, New York: Philosophical Library, 1954.

Davis, Allison and Havighurst, Robert, "Social Class and Color Differences in Child-Rearing," American Sociological Review, 1946, 11, 698-710.

de Groot, A. D., "War and the Intelligence of Youth," Journal of Abnormal and Social Psychology, 1948, 43, 596-597.

Deutsch, Martin, "Minority Group and Class Status as Related to Social and Personality Factors in Scholastic Achievement," Society for Applied Anthropology, Monograph No. 2, 1960, 1-32.

Dreger, R. M. and Miller, K. S., "Comparative Psychological Studies of Negroes and Whites in the United States," Psychological Bulletin, Vol. 57, No. 5, 1960, 381-402.

Eagleson, Oran W. and Bell, Eleanor S., "The Values of Negro Women College Students," Journal of Social Psychology, 1945, 22, 149-154.

Frazier, E. Franklin, "Problems and Needs of Negro Children and Youth Resulting from Family Disorganization," Journal of Negro Education, 1950, 19, 269-277.

Gray, Susan W., "A Note on the Values of Southern College Women, White and Negro," Journal of Social Psychology, May, 1947, 25, 239-241.

Green and Zigler, Cerebral Palsy Bulletin, 1959.

Greene, James E., "A Comparison of the 'School Morale' of White and Negro Students in a Large Southeastern School System," Journal of Negro Education, 1954, 2, 132-138.

Haller, A. O., "The Occupational Achievement Process of Farm-Reared Youth in Urban Industrial Society," Rural Sociology, 1960, Vol. 25, No. 3, 321-333.

Haller, A. O. and Butterworth, C. E., "Peer Influences on Levels of Occupational and Educational Aspiration," Social Forces, 1960, Vol. 38, No. 4, 289-295.

Hammer, Emanuel F., "Comparison of the Performances of Negro Children and Adolescents on Two Tests of Intelligence, One an Emergency Scale," Journal of Genetic Psychology, 1954, 84, 85-93.

Hansen, Carl F., "The Scholastic Performances of Negro and White Pupils in the Integrated Public Schools of the District of Columbia," Journal of Educational Sociology, 1963, 36, 287-291.

Higgins, Conwell and Sivers, Cathryne H., "A Comparison of Stanford-Binet and Colored Raven Progressive Matrices I.Q.'s for Children with Low Socio-Economic Status," Journal of Consulting Psychology, 1958, 20, 465-468.

Hollingshead, A. B., "Class Differences in Family Stability," in Bendix and Lipset (eds.) Class, Status, and Power: A Reader in Social Stratification, Glencoe, Ill.: Free Press, 1953.

Horton, Carrell P. and Crump, E. Perry, "Growth and Development XI. Descriptive Analysis of the Backgrounds of 76 Negro Children Whose Scores are Above or Below Average on the Merrill-Palmer Scale of Mental Tests at Three Years of Age," Journal of Genetic Psychology, 1962, 100, 255-265.

Hughes, Julian and Thompson, George, "A Comparison of the Value Systems of Southern Negro and Northern White Youth," Journal of Educational Psychology, 1954, 45, 300-309.

Hyman, H. H., "The Value Systems of Different Classes: A Social Psychological Contribution to the Analysis of Stratification," in Bendix and Lipset (eds.) Class, Status, and Power: A Reader in Social Stratification, Glencoe, Ill.: Free Press, 1953.

Jackson, Eureal Grant, "The Impact of Environment on Racial Achievement," The Journal of Human Relations, 1958, Vol. 6, No. 2, 47-53.

Jenkins, Martin D., "Case Studies of Negro Children of Binet I.Q. 160 and Above," Journal of ENegro Education, 1943, 12, 159-166.

John, Vera P., "The Intellectual Development of Slum Children: Some Preliminary Findings," Panel: Programs for the Socially Deprived, Urban Child, 1962.

Kahl, Joseph A., "Educational and Occupational Aspirations of 'Common Man' Boys," Harvard Educational Review, 1953, 23, 186-203.

Kennedy, Wallace A., Van De Riet, Vernon, White, James C. Jr., The Standardization of the 1960 Revision of the Stanford-Binet Intelligence Scale on Negro Elementary-School Children in the Southeastern United States, U. S. Department of Health, Education, and Welfare, Office of Education, Cooperative Research Project No. 954.

Lacy, L. D., "Relative Intelligence of White and Colored Children," The Elementary School Journal, March, 1926, 542-546.

Levine, Daniel U., "City Schools Today: Too Late with Too Little?" Phi Delta Kappan, 1962, XLIV.

Levinson, Boris, "Subcultural Values and I.Q. Stability," Journal of Genetic Psychology, 1961, 98, 69-82.

Lorge, Irving, "Schooling Makes a Difference," Teachers College Record, 1945, 46, 483-492.

McQueen, Robert and Churn, Browning, "The Intelligence and Educational Achievement of a Matched Sample of White and Negro Students," School and Society, September 24, 1960, 327-329.

Middleton, Russell and Putney, Snell, "Dominance in Decisions in the Family: Race and Class Differences," American Journal of Sociology, 1960, 65, 605-609.

Milner, Esther, "A Study of the Relationship Between Reading Readiness in Grade One School Children and Patterns of Parent-Child Interaction," Child Development, June, 1951, Vol. 22, No. 2, 95-112.

Miner, John B., Intelligence in the United States, New York: Springer Publishing Co., Inc., 1957.

Morland, J. Kenneth, "Racial Self-Identification: A Study of Nursery School Children," American Catholic Sociological Society, September 1, 1962.

Nesbitt, George B., "The Negro Race Relations Expert and Negro Community Leadership," Journal of Negro Education, 1952, Vol. 21, No. 2, 148-160.

Newland, T. Ernest, and Lawrence, William C., "Chicago Non-Verbal Examination Results of an East Tennessee Negro Population," Journal of Clinical Psychology, 1953, 9, 44-46.

Pasamanick, Benjamin and Knobloch, Hilda, "Early Language Behavior in Negro Children and the Testing of Intelligence," Journal of Abnormal and Social Psychology, 1955, 50, 401-402.

Pittman, Joseph A., "A Study of the Occupational Awareness of a Selected Group of Ninth Grade Negro Students," Journal of Negro Education, 1960, 29, 500-503.

Ransom, Katharine A., "A Study of Reading Readiness," Peabody Journal of Education, January, 1939, 276-284.

Riessman, Leonard, "Levels of Aspiration and Social Class," American Sociological Review, 1953, 18, 133-142.

Robinson, Mary Louise and Meenes, Max, "The Relationship Between Test I Intelligence of Third Grade Negro Children and the Occupations of Their Parents," The Journal of Negro Education, 1947, 16, 136-141.

Roen, Sheldon, "Personality and Negro-White Intelligence," Journal of Abnormal and Social Psychology, 1960, 61, 148-150.

Rose, Arnold, M., The Negro's Morale: Group Identification and Protest, Minneapolis: University of Minnesota Press, 1949.

Rosen, B. C., "The Achievement Syndrome: A Psycho-cultural Dimension of Social Stratification," American Sociological Review, 1956, 21, 203-211.

Schultz, Raymond E., "A Comparison of Negro Pupils Ranking High with Those Ranking Low in Educational Achievement," Journal of Educational Sociology, 1958, 31, 265-270.

Scott, Carrie M., "The Relationship Between Intelligence Quotients and Gain in Reading Achievement with Arithmetic Reasoning, Social Studies, and Science," Journal of Educational Research, 1963, Vol. 56, No. 6, 322-326.

Sewell, William, Haller, Archie, and Straus, Murry A., "Social Status and Educational and Occupational Aspiration," American Sociological Review, 1957, 22, 67-73.

Shuey, Audrey M., The Testing of Negro Intelligence, Lynchburg, Virginia: J. P. Bell Co., Inc., 1958.

Smith, B. F., "Wishes of Negro High School Seniors and Social Class Status," Journal of Educational Sociology, 1952, 25, 466-475.

Smith H. P. and Abramson, Marcia, "Racial and Family Experience Correlates of Mobility Aspiration," Journal of Negro Education, 1962, Vol. 31, No. 2, 117-123.

Tomlinson, Helen, "Differences Between Pre-School Negro Children and Their Older Siblings on the Stanford-Binet Scales," Journal of Negro Education, 1944, 12, 474-479.

Trent, Richard D., "The Relation Between Expressed Self-Acceptance and Expressed Attitudes Toward Negroes and Whites Among Negro Children," Journal of Genetic Psychology, 1957, 91, 25-31.

Willis, L. J., "A Comparative Study of the Reading Achievements of White and Negro Children," Peabody Journal of Education, November, 1939, 166-171.

Young, Florene M. and Bright, Howard A., "Results of Testing 81 Negro Rural Juveniles with the Wechsler Intelligence Scale for Children," Journal of Social Psychology, 1954, 39, 219-226.

Zunich, Michael, "Development of Responsibility Perceptions of Lower and Middle Class Children," Journal of Educational Research, June, 1963, 497-499.

CHAPTER III

PROCEDURE

Experimental Design

The study was divided into two phases. In the initial phase (phase I) parents and guardians of school-age children were questioned to determine the number of children, their age, their educational level, and the types of school and related experiences they had had in the last four years. Other relevant educational variables such as their willingness to attend school, the transportation available to these children, and the availability of radios and television were also assessed. (A copy of the questionnaire is in the Appendix).

The second phase (phase II) of the study focused on the effects of the school closing on the educational and social life of the Negro community. Using the data from the first phase of the study, a sample was selected. Children in the sample and their parents were interviewed and administered group and individual tests. Test scores from the neighboring county were collected early in Fall, 1963.

Population and Sample

The population of interest was the total Negro community in Prince Edward County. Academic characteristics were studied from Negro children age 5-22, but the study of attitudes and aspirations, activities, and experiences regarding education was focused on the entire Negro community.

Subsets of the Negro population classified by age, sex, residence, and 1959-1963 educational experiences formed the basis of the sample.

Thus the sample included children and parents of all ages and both sexes living in the urban (Farmville) and rural area, who had attended and not attended school during the four-year (1959-1963) period.

The neighboring county group of Negro children consisted of the total number of Negro children attending one rural elementary school (grades 1-7) and one high school. There was no attempt to classify these children by residences, and most of the children would be classified as rural.

Instrumentation

Two types of data were gathered in the study. The questionnaire administered to the total population of parents and guardians in phase I was primarily oriented toward demographic data. (See Appendix A.) It focused on the educational status of children and 1959-1963 activities. A questionnaire administered in phase II attempted to more intensively study activities and attitudes of parents and children. (See Appendices B and C.) This questionnaire was limited to children and parents who were part of the sample discussed in the previous section.

Achievement, aptitude, and other psychological tests were administered in the summer. The names of the tests and the ages of the children tested are shown in Table 3.1.

Table 3.1

Tests Used in Prince Edward County Testing

Tests	Ages of Subjects
Metropolitan Readiness	6-10
Stanford Achievement (Form N-1955)	10-22
Iowa Silent Reading	14-18
Self-Concept	10-14
Time-Telling Test	5-18
Stanford-Binet (Form L-M)	6-22
California Test of Mental Maturity	14-22

All the tests except the Time-Telling and the Self-Concept tests are well-known standardized instruments. The Time-Telling Test was developed by Robert Glaser of the University of Pittsburgh and consists of a series of tasks requiring children to indicate the time shown on a series of clock-like figures. The Self-Concept Test was a test formulated by Wilbur Brookover of Michigan State University which requires students to respond to evaluative questions regarding their own academic ability. (See Appendix D).

The administration of most of these tests was not limited to the sample. Initially the attempt was made to test all children, but certain elements of the situation contravened such an attempt. These will be elaborated below. The Stanford-Binet was administered to all the children in the sample who could be located and were willing to be tested, and other tests were administered to the sample within the limits of time.

Data Collection

In order to collect data for phase I, a group of interviewers were recruited from Michigan State University and other colleges in the area and from local Negro residents. In May, 1963, these interviewers with their local guides canvassed the County and administered questionnaires to all families in the County that could be located. Interviewed in phase I were 1,038 Negro heads of households.

After the questionnaires were coded and punched on IBM cards, a frequency analysis was conducted and a preliminary report submitted to the United States Office of Education concerning phase I findings (see Appendix D). These analyses formed the basis of the sample selection.

The testing aspect of phase II was completed during the months of July and August, 1963. Trained psychologists were recruited from New York City, Detroit, Michigan, and Washington, D. C. to assist in the collection of the test data. Dr. Wallace Kennedy of the State University of Florida lent assistance to this aspect of the testing program. The group and individual tests were administered in churches and buildings throughout the County. Local residents were of great assistance during the phase of the project in locating many families who resided in outlying rural districts that were not readily accessible to the research team.

The interviews of phase II were conducted in the homes of the children. Guides brought the interviewers to the homes; parents and children usually were interviewed in one visit. If necessary, the parents were interviewed in the evening.

In September the principal investigator requested and was given permission to collect comparable test data in a neighboring county, similar in socio-economic structure and educational level to Prince Edward County. Prior test records were photographed and new tests were administered.

Data Analysis

The phase I data was primarily summary-type data. Frequency distributions of the responses were the mode of analysis.

Summaries of phase I data led to the construction of subgroups for phase II testing and interviewing. The subgroups analysed were:

1. Children who had attended school during 1959-1963 and those who had not attended.
2. Children who attended summer or winter programs and those who did not attend.
3. A group of students from the neighboring county.
4. Children who were away from home at the time of the phase I interviewing.

The regression of grade equivalent scores on age was the primary method of analysis of achievement differences between the EDUCATION, NO EDUCATION, and OTHER COUNTY groups. "t" tests were also used.

In the study of the influence of informal programs on academic achievement, analysis of variance of grade equivalent scores was the statistical method chosen. The analysis of the informal programs's effect on readiness scores also used analysis of variance technique.

The responses to the interview schedule administered in phase II were analyzed with the chi-square statistic.

In some other cases mean scores or percentages are reported and discussed without statistical tests.

Procedural Limitations and Observations

At the onset of the study it was believed that school records would be available. These records would have provided pre-test information on the same tests which were administered. However, these records were not released, and so the choice of the tests which were used was made for a purpose which was unfulfilled.

The comparisons made in this study also deserve some special mention. It was attempted to find two groups of Negro students who were similar in all respects except for being out of school. One group was formed by Prince Edward County children who had attended school in the interim period. However, this group is likely to be different in the aspiration level of their parents toward schooling and in their own internal motivation and achievement characteristics. This may have led to the differences in achievement exhibited by these children in comparison to children who had no schooling.

Another comparison group was formed from the children who were attending an elementary or secondary school in a nearby county (unnamed in this study). As far as could be determined, these children were similar in family socio-economic conditions and school characteristics, but it is not likely that they were "equal" in these respects. The differences between the counties which motivated the Negro parents and children to protest in their particular way, probably also are exhibited in differences in learning between the two counties. All that can be said is that as far as occupational status, literacy, and church activity, etc., the counties are very similar.

The group in the neighboring county was chosen in an attempt to maximize the generality of the findings. The members of the two groups were not, of course, randomly selected to undergo the "treatment" of interest (non-schooling) and as such possess differential qualities which distinguish geographical groups and limit the findings of the study. They are presumed to be different only on the variable of school attendance, and to provide a somewhat better comparison than Negro children in Virginia or children on the standardization groups of the various tests.

The group and individual testing phases of the project were unique in that they did not occur in regular school buildings or classrooms; hence, creating a number of unusual problems. The testing was conducted in church buildings in the outlying rural sections of Prince Edward County, and in the basement of a rented office building and a church in the town of Farmville. A number of unique situations impeded the administration of the tests as well as the test responses of the subjects in the testing centers. A very practical problem was the oppressive heat and the poor ventilation in most of the older church buildings, which was evidenced by the restless behavior of most of the children, both the younger and the older subjects. Furthermore, the limited size of the testing centers and the great number of seats included brought about rather crowded conditions. The limited amount of space in a number of the church buildings in the rural districts made it necessary for some subjects to wait three to four hours before they could be tested. It was discovered earlier that requesting subjects to arrive at the testing centers at different hours was not functional since the younger children as well as the older children would arrive at the time scheduled for the other group and would often fail to return if they were allowed to leave. This created the problem of keeping children on the premises, and in order to do this, it was necessary to make arrangements for food and recreation. Another factor prevalent in the testing centers was the absence of rooms with proper illumination and comfortable or adequate seats. Ventilation was often poor and many of the desks were either broken or too small for the older children and at times too large for those in the primary group. The latter situation was not operative with the administration of the individual tests since they were administered in a relatively new and physically comfortable building in the town of Farmville. In general, the testing centers presented some difficulty in creating an atmosphere conducive to good test-taking behavior on the part of the student.

Throughout the group testing it was obvious that many of the subjects exhibited behavioral charcteristics that were unlike those one usually anticipates in a testing situation. However, the reader must constantly be aware of the fact that most of the subjects between six and twelve years of age had been exposed to limited or no formal group situations, especially those involved with evaluated performance.

At the onset of the Metropolitan Readiness Test administration at the first rural testing center, it became apparent that a number of the subjects were unable to hold or adequately manipulate a pencil when asked to draw a "frame" or a "circle" around a given picture. It was necessary to purchase large red crayons and offer special assistance to a number of children who lacked experience in using a pencil.

Not only initially but throughout the administration of the Metropolitan Readiness Test, subjects in the six to ten age range exhibited much difficulty in following directions regarding turning of the page in the test booklets. Cetain children had to have this done for them repeatedly by the proctors, and among those who did attempt to do this for themselves, there were repeated incidents of turning more than one page or turning the page in the wrong direction. Other indications of difficulty in following directions were evidenced when some children were told to place a finger on the "first line of the pictures." Many did not do this, and if they did so the first time, they had to be urged to repeat this procedure for subsequent rows of pictures. It was noticed that many of the younger children exhibited much more difficulty in following through on verbal directions. When asked to perform some definite task, such as marking a specific picture as an answer to a question, a number of subjects merely drew meaningless lines or marked in the wrong row. There seemed to be great difficulty among the five-and six-year-olds in keeping track of the correct row of pictures with which they were working. In some cases these same children lost track of the pages in the booklet after the first page or two. Regarding a test item in the Metropolitan Readiness Test in which children are asked to "draw a frame around a picture exactly like the one that is circled," the children, after having been given directions and practice in the first session, were told that now they were to continue this same procedure without any further help. At this, there appeared to have been a great amount of confusion. Some children continued to color the picture given as an example. Some did nothing but sit with a baffled expression. Others began to look to the proctors or to the other children for help. At this point, it was necessary to begin limiting the number of children to fifteen to twenty per sitting, and to increase the number of proctors to seven or eight.

It was observed that most of the children, with this additional assistance and encouragement, were eventually able to follow directions and complete the task. It was rather obvious that these youngsters were completely unfamiliar with the rudiments of test-taking procedures and classroom behavior. When youngsters were shown how to draw a circle or to put a cross on an animal once or twice, a number of them were then able to continue. In other words, there was a wide range of behavior - some children were completely lost and required close attention, while there were some who were quite alert and were able to learn what they were supposed to do rapidly.

One factor that rendered the task less difficult was the cooperative behavior of the subjects in the testing situation. Although several children appeared to be confused and baffled, they seemed to be very concerned about responding appropriately during the examinations. However, there were some who seemingly at times passively resigned themselves to the notion of failure. It was possible to motivate a number of these youngsters to complete the task, whereas there were some who simply gave up and did not respond to encouragement. Another interesting observation was the passive behavior of the children while waiting to be tested. In one rural district, there were as many as 200 children who waited for as long as one to four hours before they were to be tested, yet these children did not exhibit the usual boisterous behavior typical of children in other sections of the country. This was interpreted as deeply ingrained respect for authority and not some sort of internal apathy since after release from the testing situation active play was observed.

It was noticed during the administration of the Stanford Achievement Test with the older age group (ages 12 to 14) that a few youngsters could not read and had difficulties similar to the younger age group in following directions. In questioning these subjects, some indicated that at one time they were able to read, but that during the four year interim period they had lost this ability. Similarly, during the administration of the time-telling tests, some subjects were able to tell time but were unable to write it down.

CHAPTER IV

ANALYSES OF THE DATA AND FINDINGS

Analysis of Adults in the Community

Departure from the Community

From various sources, such as interviews with PEC Negro families and information provided by the Superintendent of the PEC Schools, it was learned that both professional and non-professional people left the community during the four-year period when the public schools closed.

The Negro professional group was represented largely by the public school teachers, and when the schools closed, most of these left the community. Their residential status at that time, and at present, is summarized as follows:

The Board of Education of PEC had 71 Negro teachers and principals on the payroll during the 1958-59 school year. Of the 71 teachers, 32 were non-residents, and later, when the schools were closed, the non-residents had no reason to continue to commute to the County. Two of the 39 resident teachers are now retired and one is deceased, while two have changed their residence. Seven of the resident teachers worked in the Prince Edward County Free School, a privately endowed school system established to operate during the school year 1963-64. They still own their homes in PEC. Two teachers are not employed, with the remaining 26 either maintaining their property in PEC and living and working away, or living in PEC and commuting daily to surrounding areas. Four teachers not previously working in this County are living in PEC and teaching in adjoining counties.

PEC has never had an extensive Negro middle class or professional group, and the majority of the county's Negro population are small farmers and laborers. At the present time, there is one Negro dentist, one medical doctor, and two morticians. At least one doctor was known to leave when the schools closed. United States Census data regarding the occupational status of Negroes in the County discloses that in 1960, Negroes were poorly represented in the professional, managerial, clerical, and sales fields, but were over-represented in laboring and household jobs. The percentage of Negroes in the professions was one-fourth that of whites, and one-tenth that of whites in managerial, sales, and clerical categories. Only 6.2 percent of the Negroes who were employed held "white-collar" jobs as opposed to 45.5 percent of the whites employed. Although the professional group was relatively small, the majority of its members left when the schools closed. Teachers left primarily because their occupation had vanished, and other professionals left to secure an adequate education for their children.

Although exact figures were not available it was also discovered that a number of non-professional - lower to middle lower class Negro families - left in order to assure schooling for their children. Some of these individuals were heads of households whose children could not be interviewed because they had moved away after the schools were closed. Others received attention during interviews and discussions with their one-time neighbors, who would mention some family which had moved out of the county, "Up North", to an adjacent county, to Philadelphia, New York etc., in order to send their children to school. The general rural to urban mobility and the South to North migration of Negroes was probably operative to some extent in these moves, but it can be suggested that the school closure precipitated, or gave impetus to, the decision of many families to leave the County.

Exactly how many adults left the County because the schools closed was not known, but it was apparent that the Negro population of the area had decreased since the "normal" times of 1950. According to the United States Census Report, there were approximately 6,867 Negroes (or 44.6 percent of the total population) in the county in 1950, while in 1960 there were only 5,634 Negroes (39.9 percent of the total population). The greatest decline in the Negro population occurred in the rural areas, represented by a 10.8 percent decrease as opposed to a 1.9 percent decrease in the urban area. There has also been some, but not an extensive, decrease in population of Caucasians during the period of 1950 to 1960. From 1950 to 1960, the population of the entire county declined by 1,277, of whom 41 were Caucasian, as opposed to a 1,236 non-white decrease. Thus, almost the entire decrease during this period was among non-whites, and "non-whites" in this county meant "Negro". It was not known just how many of these left in 1959 when the schools were closed, but it can be assumed that the school closure acted as catalyst for Negro out-migration.

In summary, it can be submitted that the school closure was no respector of social class, that its ramifications were felt by professional people as well as by the day laborer as long as school-age children or school-based occupations were involved, and that once these people had left the community, they may very well have left permanently and established new roots elsewhere.

Compensatory Educational Activities

The school normally serves as a socializing agent in two major ways: it transmits knowledge and values, and it promotes the ability to get along with others. The school accomplishes the first goal when it imparts structured factual material to its pupils and attempts to develop reasoning and concepts regarding this material. The school also socializes in the second sense by promoting social skills, that is, by teaching the child how to live, work, cooperate with others. Both the imparting of subject matter and contingently, cultural values, and the teaching of acceptable behavior are partially the function of the school and partially that of the home and family. In PEC formal education has been almost non-existent for Negro children except for those who have been sent outside the County to school. An attempt was made to ascertain whether parents individually or as a group have assumed any of the school's socializing functions and to find out what has been accomplished in the Negro community as compensatory activity in place of schools.

When the public schools were closed in 1959, Negro leaders sought to set up temporary arrangements to tide their children through what they hoped would be a short disruption of regular schooling. The County Negroes possessed severely limited resources with which to try to develop a school system, and it became necessary for outside agencies to lend support and help make the necessary arrangements to send as many children as possible to school outside the County. With all the efforts in their behalf some 33 percent of the children affected by the school closing were able to attend school for some period.

Parents, relatives, and friends were able to finance the out-of-County education for slightly less than half these children, and with more than half being aided by the Prince Edward County Christian Association, the American Friends Service Committee, and the Virginia Teachers Association. Only the first of these agencies is considered a part of the Prince Edward Negro community itself.

Community Compensatory Activities

When the schools first closed, the general feeling in the Negro community was that the schools would soon reopen; consequently, no substitutive agencies were organized during those first few months. Later in 1959, when it became apparent that school reopening would not occur in the near future, and after the initial feeling of shock and disorganization had passed, the Negro community established the Prince Edward Christian Association which set up temporary training centers for the children. Although some donations of money and supplies came from outside the County, it was primarily the Prince Edward Negro parent who was financially responsible for supplies, books, and the small fee paid to the teaching personnel. These centers were established in whatever buildings were available, such as churches, basements, etc. and were staffed by Negro public school teachers who had been active before the school closure. However, the majority of the teachers left after the first year, and there were few lay personnel capable of continuing the teaching function. Personnel, supplies, and facilities were inadquate for the situation, and the Prince Edward County Christian Association, by spring of 1962 was unable to sustain its winter training centers. In 1961 outside groups began activities in the County in an effort to supply the deficit in education. Although these agencies were initiated beyond the limits of the County, they received cooperation and help from the Negro community in their efforts to send children away to school or to set up summer crash programs; hence, in a sense, they became part of community compensatory action by supplementing or superseding what had originated within the community. Among such agencies were the American Friends Service Committee which also helped to organize leadership and citizenship programs within the Negro community and the Virginia Teachers Association which originally worked in conjunction with the Prince Edward Christian Association to establish the summer crash programs. The Richmond Volunteers to Prince Edward County in 1961 organized a weekend recreational and educational program for the children, and a recreation center (consisting of a vacant field and one house) was purchased by the local Negro Recreation Association to serve as a location for these activities. This group terminated its operations in 1962, but the recreational area in Farmville, although lacking in funds, facilities, and personnel, continued to operate as the one public play area for the Negro children.

Winter Training Centers

One of the first moves of Negro leaders was to establish the Prince Edward County Christian Association and to place at its head a local minister, the Reverend L. Francis Griffin. Along with other activities designed to aid the education of Negro children in the County, the Association made plans for setting up a number of training centers in various parts of the County. The Association was helped and encouraged in these plans by other groups outside the County, including the National Council of Negro Women.[1] The first two of these centers were open in February, 1960, and by the next February there were sixteen in operation serving a reported 650 children. The president of the Association described the program of the centers, as they operated in February of 1961, in the following way:

> The supervisors and assistants (26 in number) create play-life situations and do a minimum of instructing. While the whole program is principally for morale building, it is designed to keep the minds of the children alert and sharp so that they will not be too far behind other children of the same age level who are receiving formal training. Perhaps the most important outgrowth of these centers is that they offer an opportunity for supervised group activity.[2]

The point was made more than once by the Association that these centers were not to be considered the equivalent of regular schooling. They were more comparable to "holding actions". The centers were located in homes, churches, lodges, and any other structure available to Negroes. They were supported by contributions from County Negroes, with some donations of money and supplies coming from outside the County and the state. Because of the shortage of trained teachers, severe limitations of supplies and facilities, and their original temporary nature, the training centers ceased operation after three years, in the spring of 1962.

Table 4.1 indicates that of the sample of Prince Edward County Negro children attendance at the winter training centers was 27.6 percent.

---

[1] Southern School News, Vol. 6, No. 8, February, 1960, 16.

[2] L. Francis Griffin, "Written Statement as President of the Prince Edward County Christian Association," in United States Commission of Civil Rights, Third Annual Conference, 106.

Table 4.1

Percentage of Sample Attending the Winter Training Centers (N = 363*)

Number of Programs	Percentage
One Winter	15.2
Two Winters	8.5
Three Winters	3.9
No Attendance	72.4
Total Attendance	27.6

*The N of 363 represents the total responding to the question.

The greatest percentage of those responding in the affirmative attended for one winter with only five subjects attending for three years. The decline in attendance among the sample could be due to many factors such as attendance in school outside the County after this latter program gained momentum, the general decline of the winter training operation itself as it became progressively more difficult to secure teachers and supplies, and perhaps even a decline in personal motivation as the public schools continued to remain closed.

The Summer Crash Programs

During the summer of 1961 the Virginia Teachers Association cooperated with the Prince Edward County Christian Association in conducting a "crash remedial program" in which about 425 Negro children participated. Thirty-three teachers from all parts of the state volunteered for the project and gave instruction in basic academic subjects. Classes were held in three Negro churches, a lodge building, and an old school owned by Negroes. An offer by the County school board for free use of public school buildings was turned down by Negro leaders.[3]

The Virginia Teachers Association repeated its program in July of 1962 and was joined in its effort by the Student Christian Federation of New England. Students from six different colleges conducted classes for seven weeks in three rural churches. A total of 401 children were enrolled in the Virginia Teachers project, and 162 were enrolled in the Student Christian Federation classes.[4]

A 1963 summer program was carried out by a group of thirty-six Queens College students and New York public school teachers. The Queens College students raised about $7,200 through donations and benefits, and the New York teachers were sponsored by funds raised through the United Federation of Teachers.[5]

The percentage of children attending the summer programs are shown in Table 4.2. This table indicates that attendance at the summer crash programs was somewhat higher than that for winter training sessions. Here again, the majority of the sample attending did so for one summer, with almost none attending the full four years. And, as is the case with the winter training centers, fewer members of the sample attended the summer sessions than did not attend. Factors influencing attendance

---

[3] Southern School News, Vol. 8, No. 1, July, 1961, 2.

[4] Ruth Turner, "Educational Report" mimeographed at Harvard Graduate School of Education, 1962. See also Southern School News, Vol. 9, No. 2, August, 1962, 3.

[5] Southern School News, Vol. 10, No. 2, August, 1963, 14.

Table 4.2

Percentage of Sample Attending the Summer Crash Programs (N = 366*)

Number of Programs	Percentage
One Summer	21.0
Two Summers	10.7
Three Summers	6.0
No Attendance	62.3
Total Attendance	37.7

*The N of 366 represents the total responding to the question.

at this program are various; but since the offering of this program did not seem to decline, and since children who went away to school during the winter would generally be free during the summer, possibly school during the year for those who did go away partially fulfilled the need for education and decreased the felt need for whatever the summer crash program could offer. Motivation may have been lacking among those who had remained at home, due to the continued absence of the public school and its motivational components.

Parental Activities With Children

The parents of the Negro children have, in general, cooperated readily with the programs of the County Christian Association, and other groups that have sought to help in the absence of public schools. In addition, a number of parents have tried to provide their children some instruction at home or to at least make books and school materials available to them. Of the 206 families in the sample, 186 indicated that they tried to offer some manner of educational compensatory activity:

Table 4.3

Methods in Which Negro Families Attempted to Teach Subject Matter To Their Children (N = 186)

Activity	Percentage
Read to child	73.1
Bought school books	60.7
Older children tried to teach	60.2
Parents tried to teach	28.2
Bought school materials	33.3
Set up activities to teach	21.5

Table 4.3 indicates that 28.2 percent of the parents attempted directly to teach subject matter in the home, and that 60.2 percent of the older children in the family had done likewise. The actual teaching of school subjects or attempts to do so was relatively low on the part of the parents when compared with the efforts extended in this respect by the older children in the family. There appears to be operative here a strong sense of responsibility among the older children, and although it is not believed this is lacking among the parents, perhaps other variables may have entered to produce less positive responses on the part of the latter. It is quite possible that the parents (whose mean years of education was 7.07 years for husbands and 6.76 years for wives) felt themselves to be

less adequately prepared to assume the role of teacher than their older children or may not have had as much opportunity to teach their children.

The types of subjects taught by the 28.2 percent of the parents are summarized in Table 4.4:

Table 4.4

Subjects Taught by Parents
Of Prince Edward County Negro Children (N = 71)

Subject	Percentage of 71 Parents Teaching Subject in the Home*
Reading	64.8
Writing (including printing and formation of alphabet)	56.3
Arithmetic (including counting and numbers)	46.5
Spelling	26.8
Mathematics	4.2
Grammar	2.8
Household skills	18.3

*More than 100 percent because more than one subject is often taught.

An analysis of the subjects taught in the home indicates that parents generally believed themselves to be capable of teaching the basic, early elementary subjects but not the more advanced school courses. Consequently, in many subject areas such as social studies, science, grammar, and mathematics, there was an almost complete absence of educational direction. The older children who would normally be in the upper elementary, junior high school, and senior high school grades would feel this deprivation most acutely. It is suggested that feelings of inadequacy on the part of the parents were present, and that these frequently stemmed from the predominantly low educational level of the Negro parents in this community.

The setting up of planned activities to teach, including such arrangements as having a teacher come into the home, arranging for group study and/or play sessions, and helping children to read at parents' Bible classes was accomplished in 21.5 percent of the homes (see Table 4.4). Even where the parents themselves attempted to teach subject matter, it is reasonable to believe on the basis of interview schedule content that much of this activity was sporadic and inconsistent and that it was effected at the parents' convenience rather than as a structured, day-to-day activity.

The hypothesis that parents would assume many of the functions of the school cannot be supported conclusively or universally; but there is sufficient evidence to prevent the rejection of it in particular instances. There was a strong tendency on the part of parents to fill the void left by the school closing. Beyond actual attempts to teach subject matter in the home, the interest and cooperation of the parents in providing some compensatory activity is generally high as a perusal of Table 4.5 will indicate.

Table 4.5

Methods Which Parents Used to Promote Appropriate Social Behavior

Activity	Percentage of 186 Households Participating in Each Activity*
Attended church with child	91.9
Watched TV with child	87.1
Arranged for children to play together	66.3
Hunted or fished with child	28.5

*Not 100 percent because more than one activity may be performed in each household.

In the majority of the homes, parents' participation with children on a social behavior level was high, especially in regard to attending church and watching TV as a family unit. However, this same high incidence of social participation may have occurred even if the schools had not been closed. The Negro population of the County is church oriented, and would probably have attended these services with their children in any event. As in most areas of the South, the Negro churches of Prince Edward County serve as the primary meeting place and nucleus of social activity (where other sources of congregating and mutual interaction are denied the Negro population). Hence, it is expected that church attendance would be high, and the family as a unit would be involved. From observations and interviews with leaders of the community, however, it was learned that the churches did lend themselves to the needs of the situation in that they served as centers for the summer and winter training programs, and that it was often in the church on Sunday that the child was urged to strengthen his reading ability so that he could read aloud from the Bible in front of the assembled congregation.

Eighty-seven percent of the 136 parents indicated that they watched TV with their children. However, considering the amount of hours spent in watching these programs, it was suspected that TV viewing may be a major means of entertainment and relaxation under any circumstances, and that this is normally done by the family as a unit whether from design or from convenience. Of the 136 parents interviewed 61 watched from one to two hours per day, 87 watched for three or more hours per day, and only 18 did not watch TV.

Parents did make an attempt to provide some group situations whereby socialization might occur, in that they arranged for their children to play with other children at some time in 123 instances (66.3 percent). Since the majority of the children were not in school and had more free time to spend, perhaps where the formal classroom and informal school playground peer relationships were absent, an informal, non-structured and casual opportunity to relate to others was supplied by the parents in a large number of households.

Approximately one-third (28.5 percent) of the parents specified that they had at some time taken their children hunting or fishing. This activity would represent a more or less conscious and structured effort to participate with the child in activities of a broadening nature, one that might lift the child's sights beyond the circumscribed area in which he ordinarily existed.

Although parental participation in educational and socializing activities is in general high, it is low in regard to particular items that necessitate efforts beyond what is expected to be ordinary concerns of the family whether the schools had been closed or not. The purchase of school materials other than books, the setting up of teaching and socializing activities requiring more effort on the part of the family were not accomplished as extensively as one might expect. However, the lack of effort extended beyond the activities of an ordinary daily pattern of living does not indicate a fundamental apathy on the part of the parents. Time to be spent with the children, financial means with which to undertake extensive activities, and a clear-cut notion of how to proceed with an educational and socialization process generally felt to be the province of the schools are often lacking among parents who must themselves strive for a living under adverse circumstances.

Inter-Racial Communication

For the purpose of this report, communication, the presence or lack of it, will be viewed primarily as an aspect or operation of intergroup relations.

In view of this definition, when a relationship between individuals or between groups exists, communication will also exist in some form and theoretically there will be some effort extended to relieve tensions and conflict. Conversely, when two groups or individuals isolate themselves, or when one group is isolated by the dominant group [6] or by the situation, such an exchange of ideas that will help to promote a resolution of conflict will not occur. Communications can be classified into three types:

1. Traditional Communication: Acceptance of status quo by dominant and minority groups. Each group pursues its own respective goals, and does not attempt to any great extent to overcome existing barriers or to resolve mutual problems. Each group will "go its own way", acting as though the opposing or different group did not exist. Communication becomes increasingly difficult, ineffective, and may cease to exist at all.

2. Positive Communication: A concrete effort on the part of both groups is made to verbalize their conflicts, to work out these conflicts in a realistic and constructive manner. Communication is open and constructive.

3. Negative Communication: Communication will be negative, each group will tell the other only what will promote its own end, in the sense that each group sees and hears only those things that promote its own interests.

It appears that the traditional type of communication characterized Prince Edward County before the closing of the public schools in 1959. The type of communication most characteristic at the time of this study was negative communication. This evaluation based on observations, interviews, and questionnaires, has been summarized in the following study.

---

[6] Arnold M. Rose, The Negro's Morale, 7.

Traditional Negro-White Relations

Negro-white relations in the Southern United States have traditionally remained isolated from each other except where there has been person to person interaction as in the instance of work relationships. Social interaction often includes an assumption by the white of a "paternalistic" attitude toward the Negro. This rapport, friendliness, and show of affection and concern does not extend to interaction on a social level.

In the past, communication between the two ethnic groups has manifested many of the charcteristics of "positive communication", but on the whole, the two groups have remained isolated and such communication has only infrequently probed the depths of the real conflict. Recently, however, the Negro has become aware of his rights as a citizen in a democracy, and is no longer content to observe the old traditional role into which he had been cast. The failure of the white officials to vote school funds in 1959 after being ordered to integrate their school system in 1954, accelerated the Prince Edward County Negro's desire to effect constructive measures and to overcome his imposed role. It is probable that this issue has forced many members of both groups to take a stand, to evidence either negative or positive communication; to either attempt to work out a solution, or to act in such a manner as to impede any solution.

Lack of Communication Indicated by the Placing of Blame for the School Closing

The differences in the ways that the Negroes and whites placed the blame for the school closing, the lack of information provided by the white community regarding the process by which the schools were closed, and the failure of the Negroes to make their wishes known at school board meetings while the issue raged, are indicated by certain responses to Question 2, Part VII, Interview Schedule A, Phase I, "Who was to blame for the school closing?"

Typical Negro responses included the following:

> "I really feel that the Board of Supervisors were responsible. They had the power to close the schools or keep them open. Negroes have attended no meetings to determine anything about the schools."
>
> "The white, the Commonwealth of Prince Edward County, was to blame, his signature is needed for anything to be valid."
>
> "The school board was to blame. It didn't give the public a chance to vote on the situation.

Out of a sample of 206 Negro families, a majority blamed the whites, as Table 4.6 shows:

Table 4.6

Responses of Negro Parents in Prince Edward County, Virginia, in June, 1963, to the Question: "In your opinion, who was to blame for the closing of schools?"

Response	Negro Parents N= 206 Percent
Whites were to blame	52.4
Negroes were to blame	2.4
Don't know, or not sure	45.2

A large percentage of the Negroes did not place the blame for the school closing, and this in itself indicates some confusion regarding the situation or a hesitance in placing the blame.

On the other hand, a number of whites interviewed expressed regret that Negroes had no schools, but they placed the blame for the closing of these schools on the Negroes themselves:

> "It was their own fault, for they could have stayed in their own schools."
>
> "If they had left us alone, we could have had separate schools."[7]

Others thought that the Negro children who wanted an education were getting it:

> "A lot of the Negroes are going to school out of the county."
>
> "They have the winter centers and the summer programs."
>
> "The best training for Negroes is vocational--they don't need much schooling."[8]

Some of the respondents indicated that Negroes in the county had not really appreciated what the whites had done for them:

> "Colored people are treated better in PEC than in Detroit."
>
> "We gave them everything--and they didn't appreciate it."
>
> "If it were not for the whites, the Negroes would starve to death."
>
> "I've worked for good Negro education all my life."
>
> "The colored are well-treated here."

---

[7] Edward H. Peeples, Jr., A Perspective of the Prince Edward County School Issue, Masters Thesis, University of Penn., 1963. Cf. also J. Kenneth Morland, A Preliminary Report for the Virginia Advisory Committee to the United States Commission on Civil Rights: The Tragedy of Closed Public Schools, Prince Edward County, Virginia, 1964, 61.

[8] Ibid.

> "When one lost his home in a fire, he got more in contributions than he lost--and it all came from whites."[9]

At this time the two groups appear to have maintained a position of isolation as evidenced by their differing responses, and although communication did not break down completely, neither group appeared to recognize the position of the opposing group. A negative type of communication seems to have prevailed at this point.

Differences in Views Regarding the Concern of the Whites

Regarding whether or not the white members of the community are concerned about the plight of the Negro, and whether they have expressed or communicated this concern, opinions among the Negroes differed radically. In some instances, Negroes in the County seemed to sense that white people were prevented from "speaking out" because of social pressure to adhere to the traditional stand. Evidently some intergroup communication had taken place, as the content of certain of these responses to Question 3, Part VII, Schedule A, "How concerned are the whites?" shows in Table 4.7.

---

[9] *Ibid.*

Table 4.7

Responses of Negro Parents in Prince Edward County, Virginia in June, 1963, to the Question: "How concerned do you think most whites in the county are that Negro children are not going to school?"

Response	Negro Parents (N= 206) Percent
Whites are not at all, or are very little	52.4
Whites are somewhat concerned	26.7
Whites are very much concerned	14.1
Don't know, or not sure	6.8

Typical responses to the above question were as follows:

"I think some white people are concerned, but their way of life has prevented them from speaking out."

"Quite a few white people are concerned, from the way they talk."

"I have not talked with them. I think they are divided on the issue. A lot of them probably would be concerned for Negro education but they won't talk out."

"Some of them feel just as bad as we do."

"I know some who care, but most of them do not care."

"The white people in our neighborhood aren't concerned because they haven't made any effort to help..."

That the Negro had formerly accepted the showing of concern and friendliness on the part of the white as a real concern for his welfare is brought out in certain of the responses to the interview regarding the Negro's initial reaction to the school closing:

"I felt bad and had no idea that people would do this."

"I was surprised at the people doing something like this."

"I could not believe it. I thought they would open automatically in September."

"I was shocked knowing what kind of community I live in..."

"I did not know that they were so hard-hearted toward the colored people, and yet they cannot live without us...."

According to the majority of responses offered by the heads of Negro families, the school closing seemed to come as a shock, a stultifying incident leading to momentary immobility on the part of most Negroes. Had real communication existed between the two groups, the Negro would have been better prepared to accept the behavior on the part of the white officials and possibly would have been able to forestall it. The extent of the shock and surprise indicate that the white community did not solicit the opinion of Negroes in an effort to effect an agreeable solution to the school problem, did not make it known to them that Board meetings were to be held, and did not urge their attendance at such meetings. According to a great many of the interview responses, the Negro who had lived for years in this community did not realize that his white friend or acquaintance could or would actually do anything to hurt him as deeply as the closing of the schools did. Such an attitude of surprise and shock, it is believed, signifies that a lack of positive communication had been the case throughout the past, and that first the traditional and then the negative types obtained during and after the school closure.

In contrast to the stand generally taken by the Negro that whites were not very much concerned about the school closing (52.4 percent) the whites themselves expressed what they felt to be genuine concern. When it became evident in 1963 that the Prince Edward County Free School would be opened that September, the Farmville postmaster stated, "I'm glad they (county Negroes) are going to have schools to go to"; a county judge, "I'm very pleased about it"; the mayor of Farmville, "Since 1959 we have been trying to get the (Negro) leaders and parents to support a school such as is proposed here. I hope they will"; the editor of the Farmville Herald, "I have suggested the idea of having schools for Negro children not receiving an education".[10] Counsel to the Prince Edward Board of Supervisors, J. Seger Gravatt, said that the Free Schools would help and provide the freedom of choice and the freedom of association, which in his opinion, were necessary in solving the problem of school segregation in Southern counties. Gravatt sounded a similar note to that of the mayor and the editor when he stated that the white people of the county had always been willing and anxious to help provide schooling for county Negroes but that the Negroes had declined the help.

Opinions for or against the school situation were not voiced as such in the local newspaper "letters to the editor" section during the summer of 1963. The Farmville Herald covered the activities of the Phase I Survey, the "summer crash programs", etc., in a matter of fact way.

---

[10] Richmond Times-Dispatch, August 15, 1963, 1-2. Cited in J. Kenneth Morland, The Tragedy of Closed Public Schools: Prince Edward County, Virginia, 1964, p. 58.

An editorial entitled "Summer of Contentment", however, conveyed in a subtle manner certain opinions of the white community. "As often stated in these columns before, we welcome people of good will, bent upon providing education for the children of the County. With a bit of cooperation education might have been provided several years ago with local initiative."[11] This could be interpreted to mean that had the Negro population accepted the offered "separate but equal" school facilities in 1959, there would have been no need for a summer crash program now. Further, the same paper states, the New York teachers volunteering to assist in the summer crash program, "... may get the cooperation in their program which has been withheld in every effort made during the past four years by interested citizens of the county".[12] The latter comment suggests that lack of cooperation on the part of the Negro community centered around the offering and refusal of a segregated school system. This was a partial cause, but had communications been effective, other reasons for Negro dissatisfaction would also have come to the attention of the newspaper.

Again, a type of negative communication seems to have been operative throughout the history of the school closure, in that the two groups appear to have been psychologically deaf and blind to each other, each believing or grasping only what would promote its own purposes, and neither maintaining a realistic conception of the other's reasons for acting, needs, feelings, or opinions. Although the whites expressed what they believed to be real concern, they were too occupied with establishing their own line of action, with setting up their own private school, with preventing the Negro from gaining an integrated school, to convert what might have been sincerely felt concern into constructive action producive of a real solution agreeable to both parties.

---

[11] Farmville Herald, July 19, 1963.

[12] Ibid.

Methods for Re-opening the Schools

Only 6.3 percent of the Negro population believed that Negroes and whites working together could effect a workable solution. The remaining possibilities held by the Negroes interviewed are listed in Table 4.8.

Table 4.8

Responses of Negro Parents in Prince Edward County, Virginia, in June, 1963, to the Question: "How do you think the schools can be opened again?"

Response	Negro Parents (N= 206) Percent
By the Federal Government	37.4
By Negroes, fighting for their rights	13.6
By Whites, if the schools are segregated	11.2
By Negroes and whites working together	6.3
By the help of God and prayer	2.9
By the state of Virginia	1.5
Don't know, or not sure	27.2

Direct Contacts of Whites and Negroes

Based on observations during the summer of 1963, and on personal interviews with members of the Negro community, it can be stated that

Negroes and Caucasians did continue to converse casually on a superficial level after the schools were closed, and that general topics such as crops and the weather were still discussed on the street. However, mention of integration and the reopening of the public schools was in most instances carefully avoided by both parties.

Communication resulting from direct contacts with the opposite racial group became even more strained during the summer of 1963 as the demonstrations, protests, and boycotting of white-owned retail stores progressed. By the end of the summer, it was noted that almost no casual conversation between Negroes and whites in downtown Farmville occurred.

It is possible that the Negro, after having witnessed his attempts to secure a constructive solution to the school problem fail, felt that any effort to voice his opinions in conversation would be even more ineffective. It is possible that the whites did not want to hear protestations since they could or would do nothing about the situation.

The white leadership minimized the protestations and expressions of Negro opinions throughout and observed almost no direct contacts of any substantial nature with either private citizens or Negro leaders. White leadership, believing that the old paternalistic system would still obtain, did not ask the Negroes what they wanted when the Southside Schools Incorporated were established, nor did the whites include any Negro members on this board. Consequently, when the proposal was rejected by the Negro community, the whites were shocked at what they may possibly have believed to be a lack of gratitude on the part of the Negro.

Demonstrations and Other Open Protests by Negroes

Both Negro adults and students had become increasingly dissatisfied with the traditionally poorer school facilities for Negroes even before the schools actually closed in 1959. A negative form of communication was operative as early as 1950, in that Negroes voiced their opinions. No constructive measures were adopted by the white members of the school board that would rectify the situation. Hence, the Negroes felt that they had to resort to demonstrations and active protests in order to get their message across. Any other form of communication seemed to be ineffective or lacking.

The first of such protests occurred in 1951 when the Negro students organized a school strike. Dissatisfaction with the obviously poorer facilities for Negro school children led in October of 1950 to an attempt by county Negro adults to secure improved school conditions, but those whites in leadership positions did little or nothing to meet the request. When it became apparent that this method of appeal would accomplish nothing, and that their parents were unable to get their message across to the white leaders, the Negro school children themselves decided to do something. On the morning of April 29, 1951, 456 Negro students walked out of their high school in protest against educational conditions in the County's Negro schools.

The approach that the NAACP developed in the Prince Edward County case, after the school strike, represented a departure from past attempts to secure equal facilities for Negro children. Negro leaders had become convinced that court battles against the inequality of buildings and other facilities did not touch the heart of the matter of discrimination. They began to attack segregation laws themselves, with the claim that legally forced racial segregation in public schools resulted in inherently inferior education, regardless of other factors.

Where legal action seems to have only resulted in more counter action on the part of white leadership, the Negroes eventually resorted to more explicit and obvious forms of communication, that of demonstrations and boycotts. In the fourth summer of school closure (1963), when once again it became evident that funds for reopening the public schools would not be forthcoming, the Negroes proceeded with overt actions designed to force the white community to attend to the fact that the Negroes were dissatisfied with their present position.

Interestingly enough, with the exception of the Negro leaders in the County, it was not from the adult world that the demonstrations protesting school closure stemmed, but from the students themselves, including those who had been sent away to school outside of the County and had returned.

The "sit-in" demonstrations and freedom marches in Farmville during the summer of 1963, and the boycotting of white-owned and operated retail stores are illustrative of the efforts put forth by the Negro community to communicate its opinions and needs. The elements that are outstanding throughout the history of the school issue in the County are the efforts on the part of the Negroes to make themselves heard, to communicate their ideas, and to secure some rectification of the situation.

Analysis of Children in the Community

Parental Characteristics of the EDUCATION and NO EDUCATION Groups

The objective of this analysis was to identify some differentiating, parental characteristics of Negro children who did and did not attend school outside of Prince Edward County during the school closure and of Negro children who did and did not attend the six-week summer sessions. A sample of these children were compared on eight variables: (1) parental magazine subscriptions, (2) parental newspaper subscriptions, (3) parental membership in clubs or lodges, (4) socio-economic ratings of fathers' occupations, (5) parental educational aspirations for their children, (6) parental occupational aspirations for their children, (7) education of fathers, and (8) education of mothers. The chi-square test was employed to determine whether children who attended school outside of the County or attended the six-week summer sessions differed significantly on these variables from those who did not. The two-tailed test was employed; relationships significant beyond the .05 level of statistical probability were accepted.

The comparative data on magazine and newspaper subscriptions are presented in Tables 4.9 and 4.10 respectively. The chi-square tests of the relationships between magazine and newspaper subscriptions and school attendance outside of the County, as revealed by inspection of the tables, showed significant relationships.

Parents who sent their children outside of the County for schooling tend more often to subscribe to magazines and newspapers than parents who did not send their children elsewhere for schooling. This finding suggests the hypothesis that parents who sent their children away to school were more aware of the educational demands of contemporary American society.

These parents, because they subscribed to and read newspapers and magazines, were better informed about the educational requirements for social mobility and the likelihood that their children's life chances would be better if they continued their educations.

Table 4.9

Parental Magazine Subscriptions
And School Attendance Outside of County

Group	Magazine Subscriptions	
	None	One or More
EDUCATION	34	49
NO EDUCATION	35	11

$x^2 = 13.30, p < .01$

Table 4.10

Parental Newspaper Subscriptions
And School Attendance Outside of County

Group	Newspaper Subscriptions	
	None	One or More
EDUCATION	30	51
NO EDUCATION	26	4

$x^2 = 19.63, p < .01$

Table 4.11 shows the relationship between parental membership in clubs or lodges and children's school attendance outside of the County. The chi-square test, as indicated, showed that the relationship is not statistically significant. Parental membership in clubs or lodges apparently was unrelated to children's school attendance outside of the County.

Table 4.11

Parental Membership in Clubs or Lodges
And School Attendance Outside of County

Group	Parental Membership in Clubs or Lodges None	One or More
EDUCATION	49	33
NO EDUCATION	34	11

$x^2 = 2.54, p > .05$

The comparative data on socio-economic ratings of fathers' occupations are presented in Table 4.12. The chi-square test of the relationship between socio-economic ratings of fathers' occupations and school attendance outside of the County indicated a significant relationship. Fathers whose occupations are somewhat higher than average for the community tended more often to send their children elsewhere for schooling. It is felt that these fathers are more likely to have high educational and occupational aspirations for their children. While they themselves may not be highly educated, they perhaps perceive the need for higher education, particularly where their children are concerned and are more willing to send their children away from home for schooling.

Table 4.12

Socio-Economic Ratings of Fathers' Occupations
And School Attendance Outside of County

Group	Socio-Economic Ratings of Fathers' Occupations Low	High
EDUCATION	13	53
NO EDUCATION	32	27

$x^2 = 14.67$, $p < .01$

Tables 4.13 and 4.14 contain the comparative data on parental educational and occupational aspirations for children. The reported results of the chi-square tests indicate significant relationships between parental educational and occupational aspirations for children and school attendance outside of the County. Negro parents who sent their children outside of the County to school more often had high educational and occupational aspirations for their children than parents who did not send their children elsewhere for schooling.

Table 4.13

Parental Educational Aspirations for Children
And School Attendance Outside of County

Group	Parental Educational Aspirations Low	High
EDUCATION	20	56
NO EDUCATION	29	13

$x^2 = 18.62$, $p < .01$

Table 4.14

Parental Occupational Aspirations for Children
And School Attendance Outside of County

Group	Parental Occupational Aspirations Low	High
EDUCATION	27	55
NO EDUCATION	29	18

$x^2 = 8.93,\ p < .01$

The significant relationship between parental educational and occupational aspirations and children's school attendance outside of the County during the school closure lends support to the conclusion that Negro parents of PEC who have high aspirations for their children are likely to work toward the realization of such aspirations. The above data clearly showed that a significant majority of those parents who sent their children elsewhere for schooling had high educational and occupational aspirations for them, while a majority of the parents who did not send their children elsewhere for schooling had relatively low educational and occupational aspirations for them.

Tables 4.15 and 4.16 show the relationships between educational levels reached by mothers and fathers and children's school attendance outside of the County. It will be observed that no significant relationship exists between achieved educational status of fathers' and children's school attendance outside of the County, but a significant positive relationship is observed between educational status of mothers' and children's school attendance elsewhere.

Table 4.15

Educational Levels of Fathers
And School Attendance Outside of County

Group	Educational Levels of Fathers Low	High
EDUCATION	63	19
NO EDUCATION	39	7

$x^2 = 0.70, \ p > .05$

Table 4.16

Educational Levels of Mothers
And School Attendance Outside of County

Group	Educational Levels of Mothers Low	High
EDUCATION	47	36
NO EDUCATION	35	11

$x^2 = 4.04, \ p < .05$

These findings regarding the relationships between educational levels reached by mothers and fathers and children's school attendance outside of the County suggest that Negro mothers in PEC are the dominant influence on the educational motivation of their children. This same configuration was observed in response to interviews in depth with a selected group of children who attended school outside of the County. Their fathers' achieved levels of education tended to be substantially lower than their mothers' and the children expressed high vocational choices (professional occupations in all cases). The positive relationship between mothers' education and children's school attendance outside of the County derives from the fact that the particular subculture under investigation tends toward matriarchy; mothers play a dominant role in many aspects of family life. The above findings therefore seem to support the conclusion that the mothers of these children contribute substantially to their motivational behavior.

The analysis of comparative data for parents who did and did not send their children to the six-week summer sessions revealed no significant relationships between children's attendance at the six-week summer sessions and the eight variables on which the comparisons were made.

Summary

Negro parents who did and did not send their children outside of the County to school during the school closure and to the six-week summer sessions were compared on eight variables thought to be important for distinguishing the parents who sought the two means of educating their children from those who did not. The analysis revealed no significant differences between parents who did and did not send their children to the six-week sessions. A possible explanation for this finding is that there were fewer factors hindering attendance. The six-week summer sessions were more or less equally accessible to all: they were located in such a way that most families lived in close proximity to them; there was little, if any, expense involved; and all parents were encouraged to enroll their children. In short, sending children to the six-week summer sessions did not necessarily imply a special concern on the part of parents for the education of their children.

The analysis did, however, show significant differences between parents who did and did not send their children outside of the County to school. Of the eight variables, six were significantly related to children's school attendance outside of the County. These were: (1) parental magazine subscriptions, (2) parental newspaper subscriptions, (3) socio-economic ratings of fathers' occupations, (4) parental educational aspirations for children, (5) parental occupational aspirations for children, and (6) achieved education levels of mothers. There were no significant relationships between children's school attendance outside of the County and the remaining two variables: achieved education levels of fathers and parental membership in clubs or lodges.

Demographic Characteristics of Residents and Non-Residents

At the time of the community survey in April 1963, several children were away from home. These children would very likely have been living in the area had the public schools been operating. These children comprise what is hereafter called the NON-RESIDENT group, and were indentified by the response to the interview question "Are there any children who are normally here, but who are not here now?" The children who were at home were labelled the RESIDENT group.

An analysis of characteristics of these children is important for a number of reasons. Paramount is that they represent a segment of Negro children who, through the efforts of others or through their own initiative left the community to live elsewhere. Secondly, they possibly represent a significant subgroup of children who were not tested or interviewed in the Summer phase of the project, since by residing elsewhere they may have been less likely to return to the community in the Summer.

Thus some resolution of the problem of selection encountered in the study can be made. Thirdly, many of them represent an investment in education or training on the part of their families.

The act of leaving the community of course was not limited to these particular children. Many children in the RESIDENT category also lived for some periods out of the County. Analyses of children who were educated out of the county will be recounted in other sections of this report. This section will focus primarily on differences between children who were not at home at the time of the Phase I survey and children who were at home.

On the basis of usable information on the questionnaires, 135 girls and 133 boys were classified as NON-RESIDENT. 719 boys and 679 girls between these ages, were found to be living in the community.

Formal Education

For the children in the community there were three somewhat distinct methods of acquiring an education. They could be away from home and live elsewhere, they could live at home and attend schools in neighboring communities, and thirdly, they could attend special summer and winter programs instituted within the County by interested parties. "Formal Education" will include the first two methods. Table 4.17 presents school attendance figures for male and female children classified by their residency status and age.

Table 4.17

Years of Schooling From 1959-1963

	NON-RESIDENT												RESIDENT											
	Females						Males						Females						Males					
Age	None	½-1 yr.	1½-2 yr.	2½-3 yr.	3½-4 yr.	Total	None	½-1 yr.	1½-2 yr.	2½-3 yr.	3½-4 yr.	Total	None	½-1 yr.	1½-2 yr.	2½-3 yr.	3½-4 yr.	Total	None	½-1 yr.	1½-2 yr.	2½-3 yr.	3½-4 yr.	Total
5-6		1				1	2	2	1			5	112	4				116	86	4				90
7-8	1	4	5	1		11	5	1	3	1		10	103	18	6	1		128	100	16	6	1		123
9-10	1	5	2	1	1	10	2		4	3	1	10	77	7	14	3		101	82	16	11	4	1	114
11-12	1	7	2	6	1	17		7	1		2	10	64	13	6	1	1	85	62	15	12	2	4	95
13-14	1	4	7	4	2	18	2	10	8		2	22	61	11	11	8	1	92	64	17	3	5	2	91
15-16	2	9	8	3	5	27	6	5	5	8	3	27	55	12	6	9		82	64	17	6	4	4	95
17-18	6	8	7	5	1	27	3	2	8	4	1	18	36	7	6	10	1	60	54	6	7	4	1	72
19-20	3	4	10	2		19	9	2	6	5	1	10	19	5	5	3		32	38	7	8	1		54
21-22	2	1		1		4	7	1	2	1		11	9	1	1	1		12	9	1				10
23	1					1							17	2				19	15	2				17
Total	18	43	41	23	10	135	36	30	35	22	10	133	553	80	55	36	3	727	574	101	53	21	12	761
%	13.3	31.9	30.4	17.0	7.4	100	27.0	22.6	26.3	16.6	7.5	100	76.0	11.0	7.6	5.0	.4	100	75.4	13.3	6.9	2.8	1.6	100

As was expected, the children classified as NON-RESIDENT had a decidedly higher rate of school attendance than students who remained at home ($X^2 = 316.15$, $p < .001$). 72.5 percent of the boys and 86 percent of the girls attended school at some time during the four-year period. However, only 24 percent of the boys and 25 percent of the girls who were classified as "at home" went to school during this period. Of all age groups and residency categories, 67.2 percent did not attend school.

It is interesting to note that more females than males attended school in both residency categories, but the difference is significant for the NON-RESIDENT children ($X^2 = 7.02$, $p < .01$). This difference is exhibited in other comparisons of males and females in this study in both attitudes and behavior related to school. Also if in light of the commonly-held belief that the Negro sub-culture is a "matriarchy" and if academic pursuits typically lead to a dominant relationship within the family for the female, this is not a surprising finding.

Another possibility is that the Negro male during this period saw employment as more functional than out-of-state schooling. Table 4.18 shows that the Negro male at the upper age levels tended not to pursue schooling as often as females. The general poverty of the community may have meant that the salary of the older boys was needed more than the anticipated rewards of his school attendance.

The data are surprising however, in one way. American parents have typically viewed education as somewhat less necessary for women than for men. Yet in this case more girls than boys attended school. Job opportunities may have been greater for the male, yet many believe that girls have greater employment opportunities in the South than do the males.

The overall effect operating in this situation may be the well-known fact that females generally out-perform the male in the classroom. With a past history of superior performance, the female was likely to perform more adequately when sent away.

Not only were there fewer boys attending school during this period, but there was also a tendency for RESIDENT boys to go to school for shorter periods than RESIDENT girls. Differences were slightly in the opposite direction for NON-RESIDENT students. In this case, those boys who attended school attended for longer periods than girls who were in school during this period.

Grade Placement in 1959

One of the survey questions elicited information about the grade level achieved in 1959. From this information, the relative number of male and female students who were at their proper age-grade in both residency categories was computed.

There was little difference in the percentage of RESIDENT and NON-RESIDENT students who were one year or more behind their usual age-grade placement.

There was a possibility of ambiguity in the question on the survey. It asked, "What grade was he (she) in when the schools closed in 1959?" This could have meant the immediate past grade or the grade into which the person was promoted. With this ambiguity in mind, children were separated who were one or more than one grade behind the usual age-grade placement.

Six years was assumed to be the beginning age for first grade. Thus, a 13-year-old student was considered behind if he indicated that he was in the second grade because he would have been 9-years-old in 1959 and hence should have been promoted to the fourth or just graduated from the third.

A line is drawn on Tables 4.18 and 4.19 along the diagonal under which the student as "over age" was counted. Even with the very high likelihood of respondent error (although there are no compelling reasons for believing this error to be systematically in favor of girls) the boys are distinctly more "over age" than the girls. A striking finding is that this difference is not exhibited between residency groups, but that males and females differ in a very similar fashion in both residency groups. The difference in percentage, if any, is in favor of the RESIDENT children: 27 percent - 26 percent males and 18 percent - 17 percent for females.

Respondent error as an explanation of the wide variation of age within grade is less plausible when one considers that very few are reported more than one year "under age" for grade. Using the same limits as used for "over age" calculations, only 1 to 3 percent of the children are divergent enough to be assumed errors. If this is considered a constant error, it still leaves roughly 20 percent of all children being "over age" in grade. Although it did not seem to be a factor associated with going away from home, it stands as a significant factor in the type of schooling and school policy in the schools of Prince Edward County in 1959.

Table 4.18

1959 Grade Placement of RESIDENT Students

	GRADE IN 1959																											
	Males														Females													
Age	1	2	3	4	5	6	7	8	9	10	11	12	No info	Total	1	2	3	4	5	6	7	8	9	10	11	12	No info	Total
10	13	12	1										38	64	14	4											31	49
11	14	15	7	2									5	43	15	11	6				1						6	39
12	4	27	11	6	2								2	52	66	17	4										2	46
13		6	17	11	8								3	45	1	4	20	9	5	1	1						1	42
14		3	9	15	15	2		1					1	46		3	10	15	16	6								50
15		1	4	15	17	10	1	1					1	50	2	1	5	5	16	13	4							46
16			5	4	9	14	6	5					2	45			1	2	7	9	13	1		1			2	36
17			1	3	8	10	7	7	2					38	1	1	2		2	2	14	7	2					31
18	1		2		3	10	6	4	4	2			2	34				1		1	6	6	9	3			3	29
19				1	4	2	5	3	8	7	1		2	19					1			3	7	6			2	19
20						1	2	1	3	6	5		3	21							1			7	2		3	13
21			1					1	1		4	1	1	9							1		1	1	3		3	9
22											1			1							1			1			1	3
Total	32	64	58	57	66	49	27	23	18	15	11	1	60	481	39	41	61	36	47	32	42	17	19	19	5	0	54	412

Table 4.19

1959 Grade Placement of NON-RESIDENT Students

	GRADE IN 1959																											
	Males														Females													
Age	1	2	3	4	5	6	7	8	9	10	11	12	No info	Total	1	2	3	4	5	6	7	8	9	10	11	12	No info	Total
10	1		1										3	5	1	1											3	5
11	2	3	2											7	2	1	4										2	9
12		1	1		1									3	1	3	1	1		1							1	8
13		3	6	4	1	1								15	2		2	5	1		1							11
14			3	1	3									7			2	2	3									7
15			1	2	2	3	1	1						10			1	2	5	9	2							19
16				1	5	7	3	1						17						5	2	1						8
17						2	5	2						9						5	7	2		1				15
18					1	1	4	1	1	1				9							3	5	3			1		12
19							3		6	1	1		1	12							2	2	3	4				11
20									3	2	1		2	8								1	4	4	2	1		8
21										2	4	2	1	9										1	1	1		3
22										1	1			2													1	1
Total	3	7	14	8	14	14	16	5	10	7	7	2	6	113	6	5	10	10	9	20	17	11	6	10	3	3	7	117

Informal Training

Tables 4.20 and 4.21 show the number of "summer crash programs" attended by each of these children and also show whether they attended any of the "winter morale" centers.

The crash programs appeared to be the more popular of the two programs. Around 42 percent of the NON-RESIDENT children attended these sessions whereas about 40 percent of the RESIDENT children attended. For the winter training centers, the constant percentage for all groups was 24 percent.

The equality of these percentages should not be interpreted as showing similar behavior, however. Winter training centers would not have been available to those children who were living out of the County, yet the NON-RESIDENT children did attend these programs as often as RESIDENT children. Even though the summer would have been seen as a "vacation" period for those who had attended schools during the year, they attended these programs as often as RESIDENT children.

Table 4.20

Winter Training Center Attendance of Prince Edward County Children

	NON-RESIDENT CHILDREN								RESIDENT CHILDREN							
	Females				Males				Females				Males			
Age	Attended	Did Not Attend	No Information	Total	Attended	Did Not Attend	No Information	Total	Attended	Did Not Attend	No Information	Total	Attended	Did Not Attend	No Information	Total
5-6		1		1		5		5	9	87	20	116	3	76	11	90
7-8		11		11	2	7	1	10	35	88	5	128	29	87	7	123
9-10	1	9		10	5	5		10	27	71	3	101	41	72	1	114
11-12	7	10		17	2	8		10	30	55		85	25	70		95
13-14	5	10	13	18	12	10		22	30	62		92	33	57	1	91
15-16	13	13	1	27	6	18	3	27	24	57	1	82	22	72	1	95
17-18	6	19	2	27	3	13	2	18	14	45	1	60	8	61	3	72
19-20	1	17	1	19	2	15	3	20	2	29	1	32	5	49		54
21-22		3	1	4		10	1	11	1	11		12	1	8	1	10
23		1		1						4	15	19		7	10	17
Total	33	94	8	135	32	91	10	133	172	509	46	727	167	559	35	761
%	24.5	69.6	5.9	100	24.1	68.4	7.5	100	23.7	70	6.3		22	73.4	4.6	100

Table 4.21

Summer Crash Program Attendance of Prince Edward County Children
Number of Sessions Attended

	NON-RESIDENT										RESIDENT									
	Females					Males					Females					Males				
Age	0	1	2	3	Total	0	1	2	3	Total	0	1	2	3	Total	0	1	2	3	Total
5-6	1				1	4			1	5	102	8	5	1	116	78	8	2	2	90
7-8	6	4	1		11	6	2	1	1	10	66	30	20	12	128	64	28	22	9	123
9-10	3	3	3	1	10	5	3	1	1	10	44	22	23	12	101	50	25	22	17	114
11-12	6	5	5	1	17	4	2	3	1	10	25	17	26	17	85	44	14	27	10	95
13-14	8	4	5	1	18	5	4	8	5	22	42	22	16	12	92	41	20	20	10	91
15-16	8	9	7	3	27	15	5	4	3	27	49	11	14	8	82	54	18	15	8	95
17-18	17	4	3	3	27	9	6	2	1	18	41	5	10	4	60	59	6	6	1	72
19-20	17	2			19	17	2	1		20	28	2	2		32	49	2	3		54
21-22	4				4	11				11	11	1			12	8		2		10
23	1				1	0				0	17	2			19	15	2			17
Total	71	31	24	9	135	76	24	20	13	133	425	120	116	66	727	462	123	119	57	761
%	52.6	23.0	17.8	6.6		57.1	18.0	15.0	9.8		58.5	16.5	16.0	9.0		60.7	16.2	15.6	7.5	

Present Activities

Table 4.22 shows the responses to a question "What is he (she) doing right now?" It is evident that males more than females tend to work for pay far more often than do females in both residence categories, and that more girls were presently in school although the difference is less for the younger age group. The differences shown here are similar to those previously discussed which generally show more working activities on the part of males and more school attendance for females.

There is one striking aspect to this table, however. *70 percent of all girls* who were at home were reported as doing nothing. They were "just around home". The figure is lower for males (55 percent) and is very low above age 16 although the percentage of females doing very little is high until age 19. For the NON-RESIDENT males and females, of course, the percentage of children "just around home" is very much smaller.

When *all* children are considered, only around 24 percent were in school at the time of the survey. The data cannot be interpreted to indicate that this is a constant school attendance figure, but this could be considered the highest percentage attending during the school-closing period. During the first year of non-schooling, there was little indication that the schools were going to be inoperative for as long as they have been, and there was probably some reluctance to send the children away. As the likelihood of the school opening decreased, Negro parents became more willing to do this.

Table 4.22

Current Activities of Prince Edward County Children

	NON-RESIDENT												RESIDENT											
	Females						Males						Females						Males					
AGE	1	2	3	4	5	Total	1	2	3	4	5	Total	1	2	3	4	5	Total	1	2	3	4	5	Total
5-6			1	0		1			3	1	1	5		6	6	89	1	102		4	4	70	1	79
7-8			8	3		11			6	4		10	1	8	18	97	1	125	2	7	18	88		115
9-10			77	3		10			8	1	1	10	2	8	17	72		99	4	8	21	78	1	112
11-12			14	3		17			8	2		10		5	16	63		84	11	13	21	47	2	94
13-14		1	15	1		17	1		18	3		22	6	14	17	54	1	92	24	13	15	39		91
15-16			22	5		27	3		20	3		26	11	10	14	47		82	30	12	17	36		95
17-18	4		21	2		27	2		15	1		18	10	7	17	26		60	47	6	11	6	2	72
19-20	6		10		2	18	9		7		5	21	13	3	6	7	1	30	35	5	5	8		53
21-22	1		2			3	4		3		1	8	2	2		8		12	8			2		10
23	1					1									2	5		7			2	7		9
Total	12	1	100	17	2	132	19	0	88	15	8	130	45	63	113	468	4	693	161	68	114	381	6	730
%	9.1	.8	75.7	12.9	1.5	100	14.6	0	67.7	11.5	6.2	100							22.0	9.0	15.6	52.1	.8	

1 = working for pay
2 = working around the house
3 = in school elsewhere
4 = just around home
5 = don't know

Family Characteristics of NON-RESIDENT Children

There are a number of factors which could be associated with the students' travel away from home to go to school. Foremost would be the economic ability of a family to subsidize the travel and education of these students; secondly, an intense attitude about the importance of education; and thirdly, an educational level higher than the average for Prince Edward County Negro parents.

In a community which has about 70 percent of its population classified as rural, and in which nearly 80 percent of its Negro residents are non-urban, a certain homogeneity of occupation will result. The variety in farming is restricted somewhat to two main products, pulpwood and tobacco.

Table 4.23 shows the occupational distribution of two groups of parents. The RESIDENT group is a set of parents randomly selected from the same districts as our NON-RESIDENT parents whose children were all at home during the survey.

Table 4.23

Occupations of Heads of Household of RESIDENT and NON-RESIDENT Children

OCCUPATIONS	NON-RESIDENT	RESIDENT
Farming	31	34
Railroad	6	4
Contracting	6	12
Lumberman, Sawmill	7	20
Laborer	22	29
Domestic (women)	30	15
Retired or unemployed	15	23
Cook	4	3
Truck Driver	8	3
Service Jobs	14	3
Public Service	5	9
Professional	3	3
No Response		3
Totals	171*	161

* The number of parents is higher than the number of children previously discussed. This occurred because some children, although being indicated as NON-RESIDENT on the questionnaire, had no further information collected on them. Thus the totals on tables from this point exceed the number of children. The heads of households are simply those who had NON-RESIDENT children.

As can be noted from the table, there are few distinguishing characteristics. Most noticeable are the differences in the unemployed or retired category, the domestic category, and the service job category -- all of which favor the NON-RESIDENT parents. However, contracting, which is probably one of the higher level occupations, and public service both favor the RESIDENT parents. There is a slight indication of the female influence in the difference in domestic jobs. Since these enumerations cover the main breadwinner of the family, being a woman respondent appears to be related to sending children away.

In an overall estimate, however, occupation of the head of the household does not appear to be a very important characteristic. The most likely explanation of this is that very little occupational differentiation exists in Prince Edward County. The tradition of restriction of opportunity acts to homogenize the occupational distribution and this may have marked any possible differences in occupation.

Another set of questions elicited reactions concerning the education of the adults and the perceived importance of education.

Table 4.24 shows the educational level of the family heads of RESIDENT and NON-RESIDENT students.

Table 4.24

Educational Levels of Heads of Households of RESIDENT and NON-RESIDENT Students

YEARS	NON-RESIDENT	RESIDENT
0-1	6	8
2-3	4	10
4-6	62	47
7-9	41	45
10-12	22	27
12 -	8	3
No Response	28	31

The level of education of parents seems quite similar for both groups, although there are fewer NON-RESIDENT parents in the lowest level groups and more in the highest level. The overall difference as evaluated by chi-square was insignificant. A concern was reflected in another question regarding the importance of education; results are shown in Table 4.25.

Table 4.25

Responses of Heads of Households
Regarding the Importance of Education

	NON-RESIDENT	RESIDENT
Absolutely essential	110	90
Very essential	61	77
Rather important	0	11

The NON-RESIDENT group showed significantly ($X^2 = 13.47$, $p < .01$) more regard for the importance of education.

Summary

A number of comparisons were made between children who were at home at the time of the survey and those who were not at home. These comparisons, it was believed, would most likely highlight the difference between children who continued their education and those who did not. Roughly 75 percent of the NON-RESIDENT children attended school out of the county, and only 25 percent of the RESIDENT children attended school in this period.

Few of the comparisons showed any significant differences in the students' educational characteristics in 1959. There were slight but significant differences in parental attitudes about the value of education, but very little difference in their own education or occupation. The expected and highly significant differences between RESIDENT and NON-RESIDENT children in their school attendance during the four-year period of the survey and school closing did appear, but surprisingly did not appear in grade placement in 1959.

The most surprising finding was that among the NON-RESIDENTS, the women more often attended school than the men. In communities such as this, it is possible that occupational requirements specify lower educational qualifications for the Negro male or that males are needed to work to supplement the family income. It was also speculated that this pattern may be related to the hypothesized "matriarchy" in the Negro subculture.

Effects of Informal Programs

The summer and winter programs described in Chapter One were of interest because they presented an intermittent form of academic activity. Their effects were hypothesized as rather minimal in that the amount of actual time in instruction compared to any normal school program would be small; the programs tended to be half-day sessions and were completed under less than ideal surroundings.

Three separate analyses were made of children dichotomized by their attendance or lack of attendance at these programs. It was decided to eliminate from the comparison all children who had been attending regular school out of the County during the period of school closing (the EDUCATION group). This was done in order that the actual effects of these sessions could be separated from any contamination of these effects by the other school attendance. Such contamination could occur if children who attended school during the year were less likely to attend these programs because they had attended school during the year. This effect, of course, would be most likely exhibited for the winter programs, but also would influence the summer program attendance.

Effects of Programs on Younger Students

The relatively greater emphasis on academic affairs in the summer program led to the belief that the effects of the winter program would be less extensive than that of the summer program.

The number of significant subtest differences, however, indicate that the winter programs did have significant effect. On the other hand, examination of the tables shows that the relative mean score difference at each age level for most subtests is quite large for the summer programs. Thus, both of the programs were effective to some extent.

Although the summer program showed fewer significant differences in the subtests (the winter program had three and the summer had one) the overall mean difference was in favor of the summer program. The reason for the subtest results seems to lie in the nine-year-old age group which consistently was reversed on the subtest scores. This led to a rather high and sometimes statistically significant interaction for the summer group. A similar reversal occurred on age seven of the winter group although it appears on only two of the subtests (Word Meaning and Copying, see Table 4.27).

Table 4.26

F Ratios for Metropolitan Readiness Test Subtests

Metropolitan Subtest	Summer	Winter
Word Meaning	2.76	4.51*
Sentence Meaning	3.39	3.23
Information	1.70	1.75
Matching	4.31*	8.76*
Number	3.75	2.41
Copying	3.45	4.22*

*p < .05

Table 4.27

Means and Standard Deviations of METROPOLITAN READINESS TEST Subtest Scores For Children Attending Summer and Winter Programs

		SUMMER				WINTER			
Subtest	Age	No Attendance		Attended		No Attendance		Attended	
		Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D
Word Meaning	6	8.81	4.48	10.38	5.24	8.75	4.35	11.60	5.90
	7	11.30	4.27	13.05	4.40	12.28	3.96	11.91	5.50
	8	12.18	4.45	13.31	3.68	12.04	4.44	14.32	3.05
	9	15.80	2.60	14.04	3.82	14.61	3.54	14.73	3.58
	10	14.25	3.44	16.28	1.70	15.08	2.87	16.52	1.44
Sentence Meaning	6	5.09	3.36	7.00	4.90	5.46	3.44	6.40	5.90
	7	6.35	3.10	7.85	3.69	6.79	3.25	7.91	3.99
	8	7.65	2.85	8.93	3.25	7.92	3.15	9.55	3.19
	9	11.07	3.15	9.11	3.38	9.61	3.44	10.13	3.42
	10	9.75	4.22	11.56	2.05	10.84	3.34	11.39	2.15
Information	6	7.00	4.63	7.75	4.86	7.13	4.46	7.60	5.90
	7	8.30	3.33	10.35	4.04	9.03	3.51	10.09	4.57
	8	10.12	4.05	10.38	3.97	10.27	3.84	10.64	4.14
	9	12.80	2.46	11.25	3.41	11.61	3.22	12.13	3.14
	10	10.58	2.84	12.61	2.28	11.44	2.92	12.83	1.92
Matching	6	2.00	3.15	6.00	6.57	2.21	3.40	7.40	7.34
	7	3.80	4.46	8.60	6.71	5.66	5.96	7.64	6.61
	8	10.24	6.21	9.90	6.80	9.23	6.07	11.73	7.09
	9	13.60	5.87	10.18	7.00	10.18	6.82	13.60	6.27
	10	10.50	6.78	14.92	5.51	13.16	6.33	14.52	5.88
Number	6	3.62	4.70	5.88	5.64	3.75	4.42	6.60	7.27
	7	8.80	11.57	12.90	6.89	10.14	10.53	12.73	6.75
	8	12.47	7.13	17.69	13.91	15.23	15.24	17.09	6.13
	9	18.67	6.51	13.96	7.08	15.14	7.16	16.47	7.38
	10	14.83	6.07	20.08	4.02	17.88	5.73	19.74	4.20
Copying	6	1.19	2.58	3.38	3.70	1.17	2.43	4.80	4.09
	7	2.70	3.13	3.90	3.46	3.51	3.38	2.73	3.23
	8	5.47	3.63	6.41	3.35	5.35	3.56	7.27	3.12
	9	7.60	3.46	5.64	3.48	6.04	3.67	6.87	3.40
	10	5.92	3.63	8.06	2.33	7.68	2.97	7.35	2.72

Reasons for this are not known. The reversal for this age group would not be predicted or explained under any conditions known operative in this situation. It was also strange that the mean score, if reversed, would have made the progression of scores from age 6-10 very smooth. This suggested the possibility of computer error. However, the consistency in other analyses led toward rejection of this explanation. The reversal was more likely due to a sampling variation not known at the time of the analysis.

Table 4.28

Comparisons of Total Readiness Scores of Six- and Ten-Year-Old Children Classified by Summer Program Attendance

	Six-Year-Olds	Ten-Year-Olds
No Summer Training	8.81	14.25
	5.10	9.75
	7.00	10.58
	2.00	10.50
	3.62	14.83
	1.19	5.92
Totals	27.72	65.83
Summer Training	10.38	16.28
	7.00	11.56
	7.75	12.61
	6.00	14.92
	5.88	20.08
	3.37	8.06
Totals	40.38	83.51

The mean score for total test of six-year-old children who have attended summer programs was 40.38 (as shown in Table 4.28); the mean score for those who have not attended any summer program was 27.72. For the ten-year-old group the no summer program group had a mean of 65.83 while the group attending one to three summer programs had a mean total score of 83.51.

So the relative difference in percentile rank for six-year-old students was second to sixth and for the ten-year-old group the difference was from the thirty-seventh to the eighty-first percentile. It is quite evident that the second to the sixth percentile is not a very advantageous position to be in while at the ten-year-old level the group that had attended summer programs was in a decidedly better position than those ten-year-old students who had not attended summer programs.

A selection factor may be operative here in that the brighter children would be more likely sent to these programs. However, the main interest was a remedial program for basic education, which was not likely to differentially attract more intelligent children.

Although the effect is most evident for the ten-year-old children, the greatest possible difference in informal training also exists for these children. It would be unlikely that six-year-old children attended more than one session, while ten-year-old children could have attended three summer sessions.

While there is a demonstrable difference between six-year-old groups, neither is likely to be having unusual success in reading if the low readiness score common to both is a predictor of reading success. Studies on this issue are somewhat equivocal and evidence on this point will be secured in a follow-up study. In any case the gross inability to follow directions and complete tasks which was evident in both groups indicated that sessions like these affected the test scores of these children rather minimally.

According to the interpretation of the Metropolitan Readiness Test manual, neither six-year-old group was in a particularly advantageous position for subsequent reading activities, while both ten-year-old groups were. This would tend to indicate that maturation alone may be sufficient to produce higher readiness scores, and that if readiness scores are predictors of reading success, increasing age alone will evidence this readiness for reading.

It is interesting that six-year-old children differed from each other as much as they did because the number of summer and winter programs attended was fewer for these children as opposed to the ten-year-olds. Apparently, one session was sufficient for these children to learn some of the skills needed in this test.

A further analysis of the readiness scores, however, supports the belief that the influence of these programs was very minimal. In the course of the testing, children were tested at churches in groups. A week or so later a number of children were tested again. Some children appeared for testing a second time, undiscovered by the testers. This was subsequently revealed when the test scores were recorded. Twenty-five children were found to have been retested. They achieved a mean gain of 10.2 points, a difference attributable mainly to the acquisition of test sophistication. This would tend to indicate that if test-taking alone changes scores up to an average of ten points, then a difference of thirteen points observed for the six-year-old groups is not a particularly significant one. Perhaps similar skills are learned in both a retest situation and in the informal programs. We cannot assess the validity of this conjecture except to point out that a further analysis of subtest scores showed similar gains in all subtests in the post-tests.

The Informal Program Effect on Older Students

The effects of the informal programs on students ages 11-17 were assessed with the Stanford Achievement Tests. A summary of F ratios for attendance versus non-attendance at summer and winter programs for each subtest of the Stanford Achievement Test is presented in Table 4.29.

Table 4.29

F Ratios for Attendance at Informal Programs for Children Ages 11-17

Stanford Subtest	Summer	Winter
Paragraph Meaning	6.80*	2.02
Word Meaning	4.37*	0.36
Spelling	4.93*	0.56
Language	3.45*	0.74
Arithmetic Reasoning	2.85*	0.22
Arithmetic Computation	8.17*	1.61

*p < .05

The differences hypothesized for the Metropolitan Readiness Test Series are more evident in the Stanford Analysis. All the F tests on subtest scores for attendance at summer programs are statistically significant while none of those for the winter programs are. Table 4.30 shows the mean grade equivalent scores for the subtests of the Stanford Achievement Test.

The superiority of the children who attended summer programs is quite evident at all ages except age 15 where a sharp reversal takes place. No such differences are evident for the winter program group.

Table 4.30

Means and Standard Deviations of STANFORD ACHIEVEMENT Grade Equivalent Scores of Prince Edward County Children Classified by Their Informal Program Attendance

		SUMMER				WINTER			
Subtest	Age	No Attendance		Attended		No Attendance		Attended	
		Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Paragraph Meaning	11	1.44	0.99	2.02	1.23	1.84	0.69	1.82	1.60
	12	1.65	1.27	2.92	1.37	1.88	1.26	2.98	1.59
	13	2.16	1.47	3.46	1.80	3.15	1.57	2.90	2.40
	14	3.00	2.34	4.41	1.62	3.77	2.30	4.03	1.78
	15	4.80	2.13	3.65	1.86	4.18	2.29	3.88	1.53
	16	3.42	0.33	4.84	2.42	4.12	2.42	5.16	1.57
	17	4.64	1.93	5.57	3.05	4.53	1.80	5.88	3.26
Word Meaning	11	1.61	0.99	2.20	1.18	1.89	0.74	2.15	1.52
	12	1.81	1.37	3.07	1.61	2.11	1.46	2.98	1.77
	13	2.28	1.56	3.17	1.27	2.85	0.93	3.04	2.26
	14	2.79	1.74	3.95	1.29	3.23	1.74	3.79	1.38
	15	5.16	2.87	3.76	1.84	4.43	2.77	3.98	1.38
	16	3.74	1.06	4.47	1.78	4.12	1.83	4.60	1.25
	17	4.72	3.54	5.98	2.93	5.68	2.13	5.08	4.29
Spelling	11	1.34	0.91	1.88	1.26	1.52	0.85	1.92	1.47
	12	1.64	1.30	2.60	1.11	1.85	1.23	2.57	1.37
	13	2.10	1.33	2.99	1.12	2.91	1.08	2.30	1.54
	14	2.33	1.69	3.96	1.13	3.26	2.01	3.49	1.14
	15	4.79	2.49	4.04	2.23	4.17	2.53	4.50	2.02
	16	3.92	1.25	4.38	1.60	3.98	1.60	4.80	1.23
	17	4.30	4.14	5.32	3.16	4.98	3.48	4.70	3.89
Language	12	1.17	0.29	1.00	0.00	1.00	0.00	1.50	0.00
	13	1.20	0.88	2.56	1.47	2.38	1.32	1.64	1.75
	14	2.23	1.61	3.83	2.37	2.56	1.92	3.80	2.38
	15	3.41	1.64	2.69	2.41	3.39	2.39	2.26	1.65
	16	2.26	1.29	4.25	2.65	3.29	2.46	4.60	2.57
	17	3.60	3.07	5.62	4.15	3.83	2.56	5.78	4.99
Arithmetic Reasoning	11	3.03	3.28	2.13	0.08	2.71	2.64	2.11	0.81
	12	2.09	1.26	2.25	1.12	2.00	1.23	2.52	1.03
	13	2.64	1.57	3.08	0.96	3.02	0.85	2.80	1.77
	14	2.74	1.83	4.24	1.19	3.40	1.76	3.96	1.46
	15	4.61	1.99	4.07	1.61	4.35	1.80	4.13	1.71
	16	3.02	0.59	4.58	1.67	3.92	1.78	4.69	1.22
	17	3.00	2.62	4.32	2.70	3.63	2.19	3.82	3.34
Arithmetic Computation	11	2.00	0.67	2.65	0.80	2.35	0.75	2.52	0.88
	12	2.40	1.33	2.65	1.20	2.26	1.34	3.07	[illegible]
	13	2.28	1.55	3.21	0.82	2.78	1.11	3.32	[illegible]
	14	2.71	1.49	3.90	1.15	3.10	1.50	3.77	1.25
	15	4.14	1.79	4.02	1.30	4.18	1.43	3.90	1.55
	16	3.60	0.39	4.40	1.51	4.08	1.59	4.43	0.86
	17	3.64	3.12	4.92	2.69	4.37	2.76	4.30	3.22

The mean score differences were highest on the Language subtest for both winter and summer analyses while the smallest was on the Arithmetic Reasoning subtest comparison.

Discussion

The differences observed on Stanford Achievement Test scores between the effects of winter and summer programs show the more intense nature of the summer program. Generally speaking, the difference was about 1 - 1½ grade levels at each age for the summer program between attenders and non-attenders. The conclusions of sections dealing with education are tempered by a possible selection factor, but the differences here are within an unselected group, i.e. those who did not attend school. This would tend to indicate that the reason the NO EDUCATION group did as well as it did was due to the periodic reinforcement of skills involved in the summer programs (for that segment of the NO EDUCATION group who attended these sessions) and also that the summer program attendance was more functional for those who did not go away to school. (Some of those who had interim schooling also attended these summer sessions.)

Conclusions

The data presented indicate that:

1. The informal programs had a minimal effect on readiness scores of children aged 6 to 10 for either the summer or winter programs.
2. Readiness scores increase with age independently of school attendance.
3. The program effects were greatest in Language, Paragraph Meaning, and Arithmetic Computation, and this effect was probably

due to the teachable nature of these skills. The least was on Arithmetic Reasoning--a skill probably less amenable to direct instruction.

School Experience and Self-Concept of Ability

Self-concept data was acquired from a group of forty-two Negro children from PEC in the 12- to 14-year-old age range. The data collected were compared with self-concept data from two groups of Negro students of similar ages who had not been similarly deprived: (1) a group of Negro students in an adjoining Virginia county, the OTHER COUNTY group, (N = 183) and (2) a group of Negro students in a northern state, Michigan[13] (N = 114). The comparison with the former group, which closely approximated the PEC students in terms of environmental and other relevant factors, had implications as to the effects of the PEC school closure on the Negro students' self-conceptions of their abilities in academic endeavors. The comparison with the Negro students of Michigan provided a basis for comparison with northern norms.

The measure of self-concept employed here was developed and pretested at Michigan State University. It consisted of an eight-item, fixed-alternative scale designed to measure the subjects' self-concepts of ability in academic endeavor.[14] The scale was found on a pretest of fifty cases to form a Guttman scale, with reproducibility of .91. A second test of the scale with 513 males and 537 females, revealed a Guttman scale with reproducibility of .95 for males and .96 for females. The reliability of the self-concept of ability scale as determined by Hoyt's method was .82 for males and .77 for females.

---

[13] Richard J. Morse, Self-Concept of Ability, Significant Others and School Achievement of Eighth-Grade Students: A Comparative Investigation of Negro and Caucasian Students (unpublished Master's Thesis, Michigan State University, East Lansing, Michigan) 1963.

[14] Wilbur B. Brookover, et. al. Self-Concept of Ability and School Achievement, Final Report of Cooperative Research Project No. 845 (East Lansing, Office of Research and Publications, Michigan State University, 1962) Appendix C.

A word of caution should be added concerning the data reported below. For one thing, the relatively small N (42) of Prince Edward County students, unseparated into grade levels, is suspect for its diminished size alone. Furthermore, the Prince Edward County self-concept data were collected by cooperating school authorities on their own, unsupervised, initiative. Their method of selecting respondents at the time of this writing was not available. Thus, it is possible that the sample was not only small but biased. Perhaps only the better (more confident) students were included. For these reasons the inter-county and inter-state comparisons should be taken as exploratory rather than definitive data. Their purpose is to suggest the trend, not report it.

The comparative self-concept data from the Prince Edward County students and the students in the OTHER COUNTY group are reported in Table 4.32. These data were compared through the use of the t-test. Reported are comparisons between the mean total scale scores and the mean scores of the two groups on each of the eight items. The t-tests, as presented in Table 4.32, revealed no significant difference between the total scale scores of the adjacent county groups. Perhaps a biased Prince Edward County sample accounts for the unexpectedly high self-concepts observed in that group. It is possible that many of the Prince Edward County respondents to the self-concept scale had attended school outside of the

County and state in school systems equal to or superior to that of the OTHER COUNTY. Conclusive confirmation of this possibility was not possible in the absence of specific background facts on the Prince Edward sample. However, if this sample were predominantly composed of children who had received some out-of-County education, they would have been expected to rate their abilities relatively high in comparison to their friends. Item 1, "How do you rate yourself in school ability compared with your close friends?" asks this question. It is seen (Table 4.31) that Prince Edward County children answered this question with a significantly higher self-concept.

Table 4.31

Self-Conceptions of Academic Abilities
Prince Edward County Compared to the OTHER COUNTY

Comparisons	OTHER COUNTY (N=183, Grades 7-9) Mean	S.D.	PRINCE EDWARD COUNTY (N=42, Ages 12-14) Mean	S.D.	t
Total Scale	26.8	4.33	27.2	5.13	0.47
Item 1	3.07	.65	3.28	.52	2.33*
Item 2	3.19	.82	3.33	1.16	0.73
Item 3	3.26	.80	3.20	.75	0.46
Item 4	3.62	1.00	3.69	.98	0.17
Item 5	3.04	.76	3.09	.94	0.33
Item 6	3.68	.96	3.52	1.31	0.76
Item 7	3.30	.69	3.26	.97	0.27
Item 8	3.61	.81	3.76	1.08	0.83

$*p < .05$.

An alternative explanation might be that the Prince Edward County students, because of the nation-wide attention they received in the mass media and from concerned visitors, thought of themselves as having a great deal of ability temporarily suppressed by the educational deprivation. A final possible interpretation of the results is that, while school achievement and related factors may be depressed by educational deprivation, students' conceptions of their abilities need not be.

Because of the larger sample size, and the convenient grade breakdown of the OTHER COUNTY students, it was possible to look at the differences in self-conceptions from grade to grade. These data are reported in Table 4.32.

Table 4.32

Differences by Grade in Self-Conceptions for OTHER COUNTY

Grade	N	Mean Total Score	S.D.
7	48	28.0	4.14
8	69	26.9	4.12
9	66	25.7	4.50

The trend toward decrease in self-concept with increase in grade is quite noticeable here. Although the difference from one grade to the next is not statistically significant, the difference between the mean total scores of grades 7 and 9 were highly significant ($t=2.84$; $p < .01$). An extended testing over a wider grade range and for both counties is suggested. The data as it stands strongly implies self-concept decreases as age increases for the southern Negro just starting his or her teens.

The items in the self-concept scale fall into two categories: those asking for self-evaluations of present abilities (Items 1, 2, 3, 7, and 8) and those asking for self-evaluations of future abilities (Items 4, 5, and 6). The samples from Prince Edward County and OTHER COUNTY were studied on this basis with the five present-oriented items pooled and the three future-oriented items pooled.

Table 4.33

Present and Future Self-Concepts for Both Virginia Counties

OTHER COUNTY				PRINCE EDWARD COUNTY			
Present		Future		Present		Future	
Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
3.29	.75	3.45	.91	3.38	.89	3.40	1.08
t = 2.00*				t = 0.09			

*$p < .05$

It might have been hypothesized that most children in the age range investigated would be more optimistic about future performance than present even before looking at the data (Table 4.33). The OTHER COUNTY sample significantly bore this out: future conceptions of self-abilities were indeed optimistic; i.e. higher than the present. On the other hand, the Prince Edward County sample did not show this optimism. There was no significant difference between mean scores for the present and future-oriented items. This finding is definitely worthy of further testing; it may well be related to educational deprivation.'

The comparative self-concept data from the Michigan sample and the two Virginia samples are presented in Table 4.34. Observation of these data revealed that a t-test would not show significant differences in self-conceptions among the three samples. However, one might have expected a significant difference to obtain between the mean self-concept scores of the two Virginia samples and the Michigan sample.

Table 4.34

Self-Conceptions of Academic Abilities:
Michigan Students Compared to Students of
Prince Edward County and OTHER COUNTY

Sample	N	Mean	S.D.	Grade
Michigan	114	26.9	0.42	8
OTHER COUNTY	183	26.8	4.33	7-9
Prince Edward County	42	27.2	5.13	(ages 12-14)

There was however, a tremendous and highly significant ($p < .001$) difference in the variance of the scores with the Virginia samples varying over ten times as much as the Michigan sample when standard deviations are compared. This, of course, suggests that the Michigan students are more homogeneous in their self-conceptions than the Virginia students. The reasons for the difference in standard deviations between the Negro students from the two sections of the country is a matter well worth investigating in further research. Something more germane to our present concern, however, is that the mean score for the Michigan sample did not differ significantly from the mean scores obtained by the Prince Edward County students and the students from OTHER COUNTY. This may perhaps be interpreted as indicative that the average self-conceptions (but not the variance) of Negro students regarding their academic abilities are the same irrespective of differing social conditions. It is best not to accept such an interpretation without further investigation since the two samples of Virginia students, Prince Edward County and OTHER COUNTY, may not have been selected on a random basis, but may have been more or less hand-picked groups.

Summary

1. A sample of Negro students from the OTHER COUNTY group between the ages of twelve and fourteen did not differ significantly in their self-concept scores from a sample of Prince Edward County Negro children in the same age range.
2. Among OTHER COUNTY Negro students, there was a significant decrease in self-concept scores with an increase in grade from the seventh to the ninth grade.
3. While items could be divided into two categories based on a present versus a future-orientation, this division led to no significant differences within the Prince Edward County sample. However, the OTHER COUNTY sample was significantly higher on the future items.
4. The OTHER COUNTY and Prince Edward County samples did not differ significantly in self-concept scores from the Michigan sample of Negro students of similar ages. In fact, the OTHER COUNTY sample and Michigan sample had nearly identical mean scores. But the variance of the Michigan sample was significantly quite a bit less than that of the two Virginia samples.

School Attendance and Level of Educational and Occupational Aspiration

This analysis was primarily concerned with the probable effects of non-schooling on the educational and occupational aspirations of the Negro school-aged boys and girls of PEC. Ideally such an analysis should involve a comparative study of levels of educational and occupational aspiration before and after the school closure, thus tapping its effects directly. But, since aspirational data for the period prior to the school closure were not available, the question was approached by comparing the educational and occupational aspirations of the children in the sample who attended school outside the County for a part or the whole of the time that the schools were closed (EDUCATION group) to those of the children in the sample who remained in the County and did not attend school at all (NO EDUCATION group). While this approach did not allow definitive statements, some conjecture as to the effects of the school closure on levels of educational and occupational aspiration were made on the basis of the comparison of the two groups.

The second objective of this analysis was to examine the perceived importance of the role of the school as a route to social mobility. It was suspected that, having more free time to engage in gainful employment, the Negro children of PEC would perceive the school as a less significant route to social mobility. An attempt was made to shed light on this matter by comparing the educational aspirations of two sub-groups of subjects from the total sample: (1) subjects who worked for pay and did not attend school during the period that the schools were closed and (2) subjects who attended school outside of the County and did not work for pay during that period. It was reasoned that, if the perceived importance of the role of the school as a route to social mobility had been diminished by engaging in gainful employment, the former sub-group should aspire to lower levels of education and the latter sub-group should aspire to higher levels of education.

The third objective of this analysis was the determination of the degree of realism in the expressed occupational aspirations of these children. The research question to assess this matter was, "To what extent do high occupational aspirants also aspire to high levels of education?" It was proposed that in order to be realistic in his level of occupational aspiration, a subject must also aspire to the necessary level of education to obtain his occupational goal. Thus the degree of realism in the occupational aspirations of the subjects was conjectured by analyzing the correspondence of levels of occupational aspiration to levels of educational aspiration.

The fourth and final objective in this analysis of the educational and occupational aspirations of the Negro children of PEC was to determine if any relationship existed between levels of educational and occupational aspiration and urban-rural residence. More specifically, the analysis investigated whether the children who reside in the town of Farmville (urban) tended to have higher educational and occupational aspirations than those who reside in the outlying agricultural districts (rural).

Methods and Procedures

The analysis that follows is based upon data from subjects in the total PEC sample between the ages of eleven and twenty-one. Subjects between the ages of 5 and 10 were eliminated because previous research has indicated that levels of educational and occupational aspiration are more or less uncrystallized in younger subjects.[15]

---

[15] Jon Hill Rieger, "Crystallization Trends in the Levels of Occupational Aspirations of Elementary and Secondary School Students," Unpublished Master's Thesis, Michigan State University, East Lansing, Michigan, 1961.

Data for educational aspirations were taken from the responses to an interview qusstion schedule that asked the subjects to indicate how many years of school they would like to complete. Categories of high, medium, and low levels of educational aspiration were established as follows: low educational aspirations included responses indicating high school graduation or less; medium educational aspirations included responses indicating high school graduation plus some type of special training, e.g., trade school; and high educational aspirations included responses indicating college, college graduation, or beyond college. The data for occupational aspirations were taken from the responses to an interview question that asked the subjects to state the kind of occupation they would most like to follow. Occupations indicated by the subjects were assigned socio-economic ratings from the Duncan Socio-economic Index for All Occupations.[16] The level of occupational aspiration of a subject thus became the Duncan rating of the occupation he indicated as being the one he wished to follow. High, medium and low categories of occupational aspiration were derived in the following manner: ratings of 0-39 were designated as low; ratings of 40-69 were designated as medium; and ratings of 70-96 were designated as high levels of occupational aspiration.

Chi-square was the statistical test employed in this analysis. Relationships significant at or less than the .05 level of statistical significance were accepted.

---

[16] Otis Dudley Duncan, "A Socio-economic Index for all Occupations", and "Properties and Characteristics of the Socio-economic Index," in Albert J. Reiss, Jr. (ed.), Occupations and Social Status, Glencoe, Ill.: The Free Press, 1961, 109-161 and 263-275.

Results

The data relating school attendance outside of PEC to levels of educational and occupational aspiration are presented in Tables 4.35 and 4.36, respectively. It should be observed that the number of cases in Table 4.36 differs from that in Table 4.35. This is due to the varying number of responses to the relevant questions. Similarly, the number of cases in subsequent tables will vary from table to table. The data in Tables 4.35 and 4.36 show that the EDUCATION group significantly expressed higher educational and occupational aspirations than the NO-EDUCATION group.

Table 4.35

Relation of School Attendance Outside of Prince Edward County to Educational Aspirations

Group	Educational Levels Aspired to Low	 Medium	 High
NO EDUCATION	64 82.0%	2 2.6%	12 15.4%
EDUCATION	67 54.0%	7 5.6%	50 40.3%
Total	131	9	62

$X^2 = 16.54, p < .001$

Several reasons may be advanced to account for these findings. It is probable that there is a selection factor operating here, i.e., that children who aspired to higher education and high level occupations. were the ones chosen to attend school outside of the county. While this cannot be rejected as a probable reason for the observed differences in educational and occupational aspirations between the EDUCATION and

NO EDUCATION groups, it is proposed that the EDUCATION group was better acquainted with the educational and occupational opportunities in American society, and, consequently, more likely to aspire to higher levels of education and occupations. The importance of the role the school plays in socializing young people toward occupations and the amount of education required to obtain them should not be underestimated.

Table 4.36

Relation of School Attendance Outside of Prince Edward County to Occupational Aspiration

	Occupational Levels Aspired to		
	Low	Medium	High
NO EDUCATION	49 60.5%	22 27.2%	10 12.3%
EDUCATION	49 38.9%	46 36.5%	31 24.6%
Total	98	68	41

$X^2 = 9.90, p < .01$

Within the school setting pupils are exposed to a broad range of educational and occupational models. They encountered them in their studies, as guest speakers at the school, and through the exchange of experience with their peers. School field trips to various business and industrial concerns provide pupils with a greater appreciation of the occupational world; they stimulate questions concerning the amount and types of training needed to obtain such occupations. Pupils from homes without newspaper and magazine subscriptions and television are exposed to these media in the school, thus enhancing their appreciation of high level occupations and the importance of higher education. The school library is a further means by which pupils are able to learn about occupations and the appropriate levels of education to obtain them. Furthermore, hearing one's peers express high levels of educational and occupational aspirations undoubtedly provides a challenge to raise one's own levels of aspiration. Socializing forces within the framework of the school acquaint pupils with occupations and the required avenues of training to obtain them. Programs of educational and occupational counseling are highly effective in fulfilling this function. Consequently, children who attend school are better informed about high level occupations and the levels of education necessary to reach them.

The finding that the EDUCATION group expressed significantly higher educational and occupational aspirations than the NO EDUCATION group seems to point to this important role the school plays in orienting children toward higher educational and occupational aspirations. The less informed NO EDUCATION group, exposed to fewer persons, particularly Negroes who have made such achievements, consequently aspired to lower levels of education and low level occupations.

Table 4.37 contains data showing the relationship between educational aspirations and working outside of the home and not attending school, and attending school and not working outside of the home. The data show that Negro children of PEC who worked for pay and did not attend school outside of the county during the school closure tended to state lower educational aspirations than those who attended school outside of the county and did not work for pay during the school closure. Following the rationale set forth above, the finding was interpreted as support for the conclusion that the Negro children of PEC who did not attend school outside of the County but engaged in gainful employment during the school closure perceived school as a less important route to social mobility than those who attended school outside of the county and did not work for pay during the school closure.

Table 4.37

Relation of Educational Aspirations to Working Outside of the Home and Not Attending School, and Attending School and Not Working Outside of the Home

Levels of Educational Aspiration	Worked outside of home and did not attend school		Attended school and did not work outside of home		Total
Low	40	78.3%	40	54.1%	87
Medium or High	13	21.7%	34	45.9%	47
Total	60	100%	74	100%	134

$X^2 = 7.54, \quad p < .01$

This may have been due to the differences in the reference groups of the two groups of children. The EDUCATION group was more apt to choose as their reference groups persons of higher occupational and educational status. In comparing themselves with and patterning their goals after such persons, they were more likely to perceive the need for higher education and thus set their educational aspirations higher. The children from the NO EDUCATION group who worked for pay, on the other hand, perhaps choose as their reference groups persons who did more or less the same types of work that they themselves did, persons that they were more likely to encounter in their daily lives. Therefore, in comparing themselves with such persons and modeling their aspirations after them, the children who worked instead of going to school outside of the County may have observed that they themselves were of equal or higher education than their reference persons. Hence, the need for further education did not occur to them; they could succeed within their reference group without it.

Table 4.38 shows the relationship between occupational and educational aspirations. It should be noted that the categories of medium and high educational aspirations have been collapsed in that table. This was necessary to satisfy the required number of expected frequencies in each cell for the use of the chi-square test. The data in Table 4.38 show that a significant majority of Negro children of PEC who state high occupational aspirations also state high educational aspirations.

Table 4.38

Relation of Levels of Occupational Aspiration
to Levels of Educational Aspiration

	Occupational Levels Aspired to			
	Low	Medium	High	Total
Stated low levels of educational aspiration	82 58.6%	42 30.0%	16 11.4%	140 100%
Stated medium or high levels of educational aspiration	19 24.7%	32 41.5%	26 33.8%	77 100%
Total	101	74	42	217

$X^2 = 27.03, \; p < .01$

This finding is particularly interesting in view of the fact that many of these children were out of school for four years. One might have expected that there would be much disparity between occupational and educational aspirations because of a lack of sufficient information on the part of many of these children as to the amount of education necessary to obtain occupations of various levels. The tendency toward convergence however, may be indicative not only of sufficient information on the part of high occupational aspirants, but also a general lack of information on the part of low occupational aspirants regarding both high level occupations and higher education. Consequently, the low occupational aspirants similarly aspire to low levels of education.

The above arguments notwithstanding this finding supports the conclusion that the Negro children of PEC are realistic in expressing their occupational goals in terms of educational requirements.

Data relating educational and occupational aspirations to urban-rural residence are presented in Tables 4.39 and 4.40, respectively.

Table 4.39

Relation of Educational Aspirations to Rural-Urban Residence

	Educational Levels Aspired To			
	Low	Medium	High	Total
Rural	78	15	27	120
	65.0%	12.5%	22.5%	100%
Urban	62	3	42	107
	57.9%	2.8%	39.3%	100%
Total	140	18	69	227

$X^2 = 7.08, p < .05$

Table 4.40

Relation of Occupational Aspirations to Rural-Urban Residence

	Occupational Levels Aspired to			
	Low	Medium	High	Total
Rural	72 55.4%	39 30.0%	19 14.6%	130 100%
Urban	42 38.5%	42 38.5%	25 23.0%	109 100%
Total	114	81	44	239

$X^2 = 7.08, p < .05$

These findings show that a significant majority of Negro children of PEC who reside in the town of Farmville (urban) stated higher educational and occupational aspirations than those who reside in the outlying agricultural districts (rural).

While it is known that rural children generally tend to aspire to lower occupations and levels of education than urban children,[17] it is felt that the lack of the socializing forces of the schools also contributed to the disparity in educational and occupational aspirations between these two groups. The urban children still had a limited amount of contact with the occupational and educational structures of the urban white community. Such contact, of course, may have served to acquaint the urban children with various high level occupations that are non-existent in the Negro community. Further, it is probable that the urban children were exposed to a greater number of Negroes with higher education and occupations, since the several Negro professionals who remained in the County after the school closing made their homes in the town. Also, it is conceivable that the Negro professionals who visit the County tend more often to visit the town than the rural sections of the County. The rural children, on the other hand, were far less fortunate. The sparce settlements typical of rural existence, the rural churches that hold services only once or twice a month and the lack of an intra-county transportation system meant that the rural children were fairly isolated both among themselves and from the town. The situation before the school closing was, of course, quite different for the rural children. Going to school was more than just receiving an education; indeed, it was the lifeblood of the rural children's social life. It provided the types of social contacts that we often overlook until they are interfered with in some way such as in PEC. It is therefore proposed that the school closing, while it tended to arrest the development of high educational and occupational goals among all of the Negro children of PEC, had its greatest effects upon the development of such goals among the Negro children in the rural sections of the County.

---

[17] Archie O. Haller, "The Occupational Achievement Process of Farm-Reared Youth in Urban Industrial Society," Rural Sociology, 25, September, 1960, 231-233.

Summary

The findings of this analysis may be briefly summarized as follows:

1. Negro children who attended school outside of PEC for a part or the whole of the four-year school closure stated higher educational

and occupational aspirations than those who remained home and received no formal education during that period.

2. Negro children of PEC who worked and did not attend school during the four-year school closure stated lower educational aspirations than those who attended school outside of the County and did not work during that period.
3. Negro children of PEC who stated high occupational aspirations also stated high educational aspirations.
4. Negro children of PEC who reside in the town of Farmville (urban) stated higher educational and occupational aspirations than those who reside in several of the outlying agricultural districts (rural).

The Identification Process: Age, Sex, and Education

The child forms much of his self-concept on the basis of what others think of him. Very early in life he chooses models for conduct and aspirations from among those whom he can at the very least imitate superficially or with whom he can at the very most identify to the extent of internalizing attitudes, behavior, ideals, and goals. His choice of models is indicative of what, for the moment, he wants to become. In an effort to discover who is important to PEC Negro children as models, children in the sample were asked to designate three people whom they most admired. It was assumed that the imitative and identification process would be operative whenever there is a relationship sufficiently established to permit verbalized liking or admiration for a particular individual.

It was expected that the child, as he grows older will move from a parent and family-centered socializing environment to one of peer and teacher relationship. Later, as he proceeds toward an occupation or perhaps works at part-time jobs, one would expect the adolescent to establish an eventually healthy employer-employee relationship, and these authority relationships should be reflected in his choice of models. As the child widens his circle of associates, his choice of models should be commensurate with his progressing status in society.

In a community such as the one under study, however, where restricting and disorganizing elements are present, some interruption of the normal socializing process would be expected. This interruption or impediment should be partially reflected in the choice of models or significant others by the young people of the community.

Data to be used in determining what models were influential in the lives of these youngsters were drawn from the responses to the interview schedule statement: "Name three people whom you admire." The responses were grouped into 11 general categories.

An item count was made for three choices on the basis of:

(1) age (5-10 and 11-21)

(2) EDUCATION and NO EDUCATION groups

(3) Sex

Results

A summary of the first, second, and third choices of the most admired persons is shown in Table 4.41:

Table 4.41

First, Second and Third Choices of "Admired Figures" by Prince Edward County Negro Children.

	1st choice % (N = 372)	2nd choice % (N = 372)	3rd choice % (N = 372)
Parental figures	37.6	31.2	11.8
Family figures, non-parental	17.5	22.6	34.1
Peers	8.3	7.3	6.9
Civil rights leaders	4.8	2.7	5.1
Teachers and principals	1.1	1.6	2.7
Professional people	0.3	0.3	0.3
Glamor figures	8.1	7.3	5.4
Adult friends	6.7	6.7	5.1
Fantasy figures	1.6	1.3	0.8
Unidentified figures	3.8	2.9	2.9
None, don't know, no response	10.2	16.1	24.7

It is clear from Table 4.41 that parental figures constitute the greatest majority of model choices.

Parental and Non-parental Family Figures

It was assumed that younger children would choose more parental figures more frequently than would older children. However, Table 4.43 shows that this difference did not obtain:

Table 4.42

First, Second, and Third Choices for Parental and Other Family Figures of Children in Two Age Groups

	5-10 years of age (N = 153)			11-21 years of age (N = 219)		
	First choice	Second choice	Third choice	First choice	Second choice	Third choice
Parental figures	33.9%	31.4%	13.7%	40.2%	31.1%	10.5%
Non-parental family figures	20.7%	24.8%	35.3%	15.1%	21.0%	32.4%

Likewise, on the basis of sex, there was little differentiation regarding preference for parental and other family figures, as Table 4.43 indicates:

Table 4.43

Sex Differences in Choice of Parental and Non-parental Family Figures

	Males (N = 187)			Females (N = 182)		
	First Choice	Second Choice	Third Choice	First Choice	Second Choice	Third Choice
Parental figures	40.6%	40.1%	13.4%	30.1%	22.5%	10.4%
Non-parental family figures	18.2%	18.2%	36.4%	17.1%	27.5%	32.4%

On the basis of education outside of the County during 1959-1963, the configuration of choices for parental and other family figures is seen in Table 4.44.

Table 4.44

First, Second and Third Choices for Parental and Other Family Figures of the EDUCATION and NO EDUCATION groups

	EDUCATION (N = 178)			NO EDUCATION (N = 102)		
	First choice	Second choice	Third choice	First choice	Second choice	Third choice
Parental figures	35.9%	28.7%	12.9%	45.0%	39.2%	8.8%
Other family figures	16.3%	24.1%	32.6%	17.6%	19.6%	39.2%

Within each group composed of those who have attended school and those who have not, the choices of all three levels are relatively high for family figures, with a high percentage of parental figures, except for third choice models where other family figures are high. The percentage over all choices is somewhat higher for the NO EDUCATION group than for the children in the EDUCATION group.

Contrary to what was expected regarding the child's choice of models as he grows older, the children in the sample did not draw their models from a progressively widening circle of acquaintances. Throughout the sample, family based figures maintained a high incidence of choice whether the respondent was being considered by age, sex, or amount of schooling. The data from this study suggest that the normal process of identification and imitation, and the choice of significant others has been severely impeded or interrupted by the public school closure. It is probable that the interruption of the imitation process was affected by the absence of one of the most important socializing instruments: the school as a continuing factor in the environment. When the school does not exist, or exists only partially and sporadically as it did for children sent outside the County, the child's contact with an increasingly wide variety of significant others is restricted and he is thrown back into the family circle. Peers decrease in number; teachers, for many, become non-existent; and the educational channels (classroom discussion, textbooks, etc.) through which awareness of more abstract, appropriate models could be sharpened, are lacking. Associates become limited to parents, siblings, and other family members whose presence does not depend on the school's existence. Instead of increasing the circle of peers, especially in more sparsely populated rural areas wherein the school is normally the children's common meeting place, circumstances force the forming of non-family relationships solely with whatever adults visit the parents. Teachers are not imitated since these are for the most part non-existent. The child who goes away to school continues to view parental and family figures as being of primary importance in that these figures represent what is stable in his existence. There exists also a strong possibility that the PEC Negro children in this sample chose parents so frequently because of economic dependence upon them since part-time jobs for young people were relatively lacking. From observations, interviews, and reading, it is submitted that, in contrast to the general belief that Negro families are unstable, at least in PEC Negro family ties were strong. Negro children admired, respected, and honestly liked their parents and other members of the family. Consequently, these individuals were designated as highly preferred models even into late adolescence and beyond.

There was so significant difference according to age, sex, or education groups in the percentage of the remaining categories identified with (peers, civil rights leaders, teachers and principals, professional figures, glamor figures, adult friends, and fantasy figures).

Since a full 55 percent of the first choices were for parental or family figures, the significant lack of identification with the other categories needs explanation. The absence of school in its formative role of peer relationships limited the children's contacts. Although town children may have compensated for this somewhat in daily play, rural children (living large distances apart) lacked even this advantage.

The majority of civil rights workers chosen were those with whom the child had had some actual contact (local ministers, social workers, members of the American Friends Service Committee). However, there were several choices expressed for national figures whom the child viewed as helping the cause of the Negro. These latter included President Kennedy, Martin Luther King, and one choice each for Elijah Muhammed, and Malcolm X. With the schools closed in the County and consequent classroom and textbook discussions of current issues, figures, and national heroes absent for many of these children, less awareness of and preference for abstract models would be expected. However, there did exist other channels of communication besides the classroom, and, considering the number of hours spent viewing TV programs and listening to the radio (mean hours per day watching TV: 4.9; mean hours per day listening to radio: 2.4) where current issue programs were included, more awareness of these figures expressed by choices of models would be expected.

A larger number of choices would be expected to be made for civil rights leaders by the students who had attended school outside of the County, especially when one considers that it was these adolescents who came back to play a major role in the 1963 demonstrations and civil rights actions. The percentage of choices for these models was high but not sufficiently extensive to offer competition with parental and other family figures. (cf. Table 4.43). The possibility is offered that although other models are chosen in specific areas, and perhaps on a temporary basis depending on current situational factors, parents and other family members represent more stable, enduring, and fundamental figures in the child's range of acquaintances and experiences. At least in this sample, family figures continued to serve as most preferable models throughout adolescence. Of course, the low frequency of choice for teachers and principals can be linked directly to the lack of contact engendered by the years of closed schools.

On every choice level, professional figures were designated in so few instances that their significance as appropriate models was negligible. In only three instances out of a possible 1,116 choices were attorneys, medical doctors, nurses, and other professional people chosen. Again, it is suggested that the presence of appropriate models in a community and some kind of personal interrelationship with these figures, or, if exterior to the community, an adequate knowledge of their role, purposes, goals, and a personal conviction of their importance or significance to the individual choosing them, are necessary prerequisites to their designation as meaningful and appropriate models. The professions were not highly represented in the PEC Negro community with only a medical doctor, a dentist, a mortician, a few nurses residing there at the time of the study. The majority of the professional people, especially the teachers (see preceeding analysis of choices for teachers), had left the area during the four years of the school closure. Consequently, there were few local professional figures with whom the young person could identify or whom he could imitate regarding occupational goals. It is also known that southern Negro youngsters appear to be inadequately informed regarding occupational opportunities available to them especially in their own area,[18] and that in many instances they believe they can be teachers, nurses, social workers and ministers, but not doctors or attorneys. They do not see other members of their community extensively becoming members of professions and have few models in this category to imitate, and hence do not see themselves striving for this goal. Possibly, then, this is an explanation for the tendency to reject this type of figure as an appropriate model.

On the basis of the data, observations, and interviews, it can be concluded that the sample did not choose professional figures because (1) there existed a paucity of such figures in the community, (2) the predominantly large number of choices for parental and other family figures usurped the possibility for other choices including that of professional figures, as it did in regard to teachers, civil rights leaders, and others.

Included in the category of glamor figures were actresses, musical figures (dancers, singers, musicians), athletes, and people who were perceived by the respondent as dressing well or appearing physically attractive. Most of these figures were Negro.

---

[18] William E. Amos, "A Study of Occupational Awareness of a Selected Group of Ninth Grade Negro Students", Journal of Negro Education, 1960, No. 24, 501.

Girls chose slightly more from this category than did boys, and their choices included almost exclusively physically attractive female figures rather than female athletes. Boys tended to equalize their choices between Negro male athletes and Negro male musicians and singers. Possibly the frequency of choice for musicians derives from a situational factor whereby Negroes have been able to realize goals in the field of music and athletics and are very much in evidence on TV and radio.

Adult friends were chosen by fewer than 10 percent of the children on each level of choice. These data suggest a certain amount of alienation in the sample from the adult world.

Fantasy figures were designated as literary, TV, radio or movie characters who played a role sufficiently strong to become idealized types and are accepted as though they existed and exerted a commensurate influence. Such figures would include Superman, the Green Hornet, Wyatt Earp, and other cowboys of the Old West. The few choices designated in this category developed primarily among the 5-10 year age group, among males, and among those who had attended school. In respect to total responses for the sample, the number of Fantasy figures was almost negligible, appearing only 14 times (3.7 percent of 1,116 total possible choices) when all levels of choice were considered. In the absence of norms from the children in other areas, this finding cannot be adequately evaluated beyond the suggestion that less fantasy life than is normal for children exists in Prince Edward County.

Summary

It was found that the young people in the sample were characterized in their choice of models as follows: (1) they did not choose non-family figures with increasing frequency with advance in age. In the event that they attended school outside the County and hence widened their environmental scope, non-family choices increased slightly in some categories but not universally, nor did the increase when present serve to destroy the predominating frequency of family figure preferences; (2) they did not identify with an appreciable large number of teachers and peers at any time; (3) they did not designate professional figures as acceptable and meaningful models; (4) they did not choose an expected large number of fantasy figures in the younger age group, although the few such figures designated did occur at this age level; (5) they did not choose a relatively high number of glamor figures, or adult friends; (7) they did choose some civil rights leaders and workers, but did not indicate a preference for this model with the frequency that would be expected during a time when civil rights action by youth was most operative in the community.

It is likely that many situational and personal factors were operative in the rendering of model preferences. For example, lack of appropriate non-family models in the community, lack of role information sufficient to allow crystallization of preference for professional figures, dependence upon family members for sustenance, inspiration, and stable relationships, etc. It is reasonable to believe however, that although preference for family figures might have been relatively high under any circumstances, this would not have occurred with such persistent frequency had the public school been in operation. The closing of the schools and the consequent interruption of the school's socializing role appears to have impeded what is considered to be the normal process of identification, imitation, or choice of models.

Patterns of Delinquency

According to Dreger and Miller in their summary of comparative psychological studies of Negroes and whites in the United States, "statistics reporting the incidence of crimes and delinquency have consistently shown a higher prevalence among Negroes. The few studies that have appeared in the literature during this period seem not to have been particularly concerned with the question of incidence *per se*, but have explored possible causative differences between the two races and differential treatment by police officials and the courts."[19] The data from this report on delinquency was derived only from the Negro population of PEC and did not include a comparative study of the delinquency rate among whites or among Negro youth in other sections of the County.

It was also felt that a lower level of education, poor economic conditions, and lower socio-economic status among the Negro population in the South might also, as Davis[20] suggests, produce an adverse psychological effect on Negro citizens. This could promote social disorders and delinquency, especially in an environment that has suffered educational deprivation and resultant disillusionment, discouragement, and possibly even a lessening of self-respect and respect for others.

---

[19] Ralph Mason Dreger and Kent S. Miller, "Comparative Psychological Studies of Negroes and Whites in the United States," *Psychological Bulletin*, 1960, Vol. 57, No. 5, 392.

[20] Robert E. Davis, *The American Negro's Dilemma*, (Philosophical Library, New York, 1954) p. 93 ff.

In an effort to determine the extent of crime and delinquency among PEC's Negro youth from 1957 through 1963, data were obtained from the Juvenile Court records of Farmville, Virginia. An attempt was made to determine whether crime and delinquency increased or decreased among Negro youth during the four years of school closure and to provide suggestions which might account for the direction that delinquency observed in either case.

On the basis of informal conversation and interviews with adults in the Negro community, it was felt that the delinquency rate might have increased appreciably since the majority of the children were around home with more free time and without the normal opportunity to channel their activities in the direction of regular school work and social outlets.

The following statistics are from the Juvenile Court records of Farmville, Virginia, and include subjects actually booked for delinquent activities from 1957 to 1963.

Table 4.45

Crime and Delinquency Among Negro Youth in Prince Edward County From 1957 to 1963 (N = 146)

Action for which subject was booked	1957	1958	1959	1960	1961	1962	*1963 to 5-27	*1963 to 8-3	1963 after 8-3	Total	%
Assault	2		2	1	3	3				11	7.5
Breaking and entering	1		3	11	11	1				27	18.5
Curfew law							2			2	1.4
Delinquents		2			1					3	2.1
Destruction of property	5	3								8	5.5
Disorderly			2		3		1			6	4.1
Disturbing worship								10		10	.7
Failure to answer summons	1									1	.7
Failure to attend school	1									1	.7
Left scene of accident			1							1	.7
Molestation						2				2	1.4

(Continued)

Table 4.45 (Continued)

Refuse to obey officer								5		5	3.4
Shoplifting	2		1			3			1	7	4.8
Started fires				3						3	2.1
Theft			6	10	1	6	2			25	17.1
Threatening life						1				1	.7
Traffic offense	2				1					3	2.1
Trespassing							1			1	.7
Uncontrollable	1	1		1	2	3				8	5.5
Violation of probation			1		1					2	1.4
Window peeking		2								2	1.4
Unspecified								17		17	11.6
Total	15	8	16	26	22	20	6	32	1	146	
%	10.3	5.5	11.0	17.8	15.1	13.7	4.1	21.9	.7		

*1-1-63 to 5-27-53 represents the normal period of the year prior to the racial demonstrations in Farmville; 5-27-63 to 8-3-63 represents the period of the demonstration during which behavior normal to a state of demonstration was considered delinquent by the authorities; 8-3-63 to 12-31-63 represents the again "normal" past demonstration period.

Regarding the nature of the behavior considered delinquent by the County authorities, with the exception of that behavior deriving from the demonstrations, breaking and entering (twenty-seven instances, 18.5 percent of all delinquent acts) has been the most frequent offense during the period for which data are available, and theft represents the second highest offense (twenty-five instances, 17.1 percent of all delinquent acts). Shoplifting (seven instances, 4.8 percent) can be considered as one type of theft. This is in line with Digg's findings in Philadelphia in 1948,[21] wherein the author concluded that theft was the leading offense of Negro boys. Assault (eleven instances, 7.5 percent), uncontrollable behavior (eight instances, 5.5 percent), and destruction of property (eight instances, 5.5 percent) rank next in the study. Of other major types of delinquency, molestation of women, window peeking, threatening life, occur so infrequently as to be almost absent from the crime roster.

When the period including the racial demonstrations is not considered, 146 instances of delinquent and criminal behavior are seen to have occurred over a six-year period. The years 1960 through 1962 indicate almost twice the number of offenses as the preceeding two-year period, 1957 through 1959, when the schools were operating. Although in general, major crimes are absent during the total six-year period, small felonies such as breaking and entering definitely increased after the schools were closed. The possibility is submitted that regular schooling and its intendent homework and other school-based activities may be an operative factor in maintaining a low level of delinquent behavior on the part of school-age youth.

---

[21] Mary H. Diggs, "Some Problems of Negro Children as Revealed by Comparing Delinquency and Crime Statistics," Journal of Negro Education, 1950, 19, 290-297.

Viewing the number of offenses over the total six-year period from the standpoint of the total school-age population, however, the rate of crime and delinquency remained relatively low. In 1960, the year of the highest rate of offenses, there were approximately 1700 children of school-age residing in the County, and twenty-six juvenile offenses were committed. If this figure represents only one offense per individual, then 1.5 percent of the youthful population was delinquent, whereas approximately 98.5 percent of the school population remained non-delinquent. Considered from an overall standpoint in regard to the total period of time, the number of offenses, and the entire school-age population PEC was not alarmingly delinquent. Lack of schools, and generally poor economic conditions did not produce the explosive increase in crime and delinquency that one might expect under these conditions.

Experiences of Children Educated Out of the County

In an effort to determine typical experiences of young people while living away from home, depth interviews were conducted with eight students from Moton High School[22] in Farmville, Virginia. These students had all attended school outside of Prince Edward County from one to four years (EDUCATION group).

With the exception of two students whose families had moved outside the County temporarily to work and send their children to school, the interviewees had been sent away to school by the American Friends Service Committee. The Service Committee arranged for payment of tuition to the out-county schools when this was required, and when it was financially necessary, paid other expenses of these children while they were away from home. The data reveal that the basic criterion for selecting these children to be educated outside the County appears to be that of motivation and personal desire on the part of the individual student to continue his education while the public schools in the County were closed. The subjects stated that they had contacted the American Friends Service personnel active in the County and indicated their desire to go away to school. Their names were placed on a waiting list, and the American Friends then interviewed the parents, arranged schooling and housing for the children either in the State of Virginia itself, or, more frequently, in other States (such as New Jersey, Maryland, Ohio, Massachusetts, etc.). One interviewee stated that the American Friends preferred to send older children who would be more capable of caring for themselves to alleviate undue responsibilities on the part of the host parents.

---

[22] Moton High School is a part of the Prince Edward Free School Association established for the school year 1963-64.

The primary concern was with the matter of adjustment to a new environment, the experiences encountered therein, and the mutual interactions of these young people with children and adults in the host family, the school, and the neighborhood where they resided.

Several of the subjects had lived with two or more families during the course of their education outside the County. At some time during their residence away from home, four of them had lived with a white family or had lived in a racially mixed dormitory situation. Four of the subjects had never lived with a white family or with white students in any situtation. Three of the subjects had lived in an all Negro neighborhood; four had lived in a mixed area; one had lived in an all white neighborhood.

All who lived with host parents encountered a more or less professional, middle-class, and reasonably affluent environment. Several of the subjects had been able to travel about the country with the host parents (both within and outside of the State in which they lived) to visit scenic and historical sites or to visit relatives of the host family. While travelling about, the young people accompanying the host families were generally well accepted by both Negro and white individuals encountered enroute.

All of the interviewees except two indicated that they had had little or no difficulty adjusting to a new home, new people, new neighborhood, and new school. In general, they did not feel "strange" regarding the new environment or the people in it, and were accepted and very well treated by their peers, teachers, and the families with whom they lived. The young people away from home found so many new opportunities to engage in interesting activities both in and outside the school that they did not have time for loneliness. What was expressed by one student who had attended school in Dayton, Ohio, can be applied generally to the majority of those interviewed in respect to their relationships with members of the new environment:

> "I felt as though I was at home. The family was very good to me. I fitted in very well with both the adults and children in the family. I worked in well with the neighborhood, and with the new school. No one made me feel strange, and relationships with other people (both Negro and white in the case of mixed neighborhoods and integrated schools) were not strained. I didn't feel much different there than I had at home."

However, there were exceptions to the above. One girl who was twelve years old when she was sent to school in Morristown, New Jersey, had experienced difficulty in adjusting to peers and to the town in which she lived:

> "In Morristown, which was my first time away from home, it was hard to get acquainted with the other children in the neighborhood and in the school. I just didn't feel myself to be a part of the group, and didn't make any real close friends. I don't know why, but I hated Morristown. When I attended school in West Newton, Massachusetts, however, I loved it! I made close friends in West Newton and although most of these were Negro, I had no trouble making friends with white children, either. I think maybe one of the reasons I didn't make friends in Morristown was because of my accent, and theirs. I couldn't understand what they were saying, and they couldn't understand me."

One young man aged nineteen when interviewed, who had been to school in Baltimore, Maryland, for one year, had at first experienced some difficulty in adjusting to the new environment. The neighborhood was all white, and he had felt uncomfortable living with white people. He was so well accepted by the family with whom he stayed, however, that he was soon able to get over what he termed his "color-consciousness". It is believed this subject's experiences were especially interesting, and offer the interview en toto:

> "The American Friends arranged for me to go away to school, after I told them I wanted to go away. As far as expenses goes, I had $8.00 per week as an allowance from the people with whom I stayed. These people took care of all of my expenses because they wanted to. They were quite prosperous people. I used to do odd jobs in the neighborhood, such as shovelling snow for money from other people, but the family with whom I stayed wanted me to keep all that I made, and still gave me the $8.00 per week allowance. The family with whom I stayed had four children of their own, three boys and one girl, all small children. This was a white family, Quakers, and the man worked at the Social Security Bureau, the woman was a housewife."

> "It was hard for me at first to adjust because I had to get used to staying with a white family. Nothing like this had ever happened to me in Prince Edward County where Negroes just didn't stay that close to white people, and I felt rather strange about it at first. For one thing, the white family with whom I stayed cooked differently than I was used to, and I had to learn to eat a different kind of food. The kids in the family took a while to learn how to act toward me, but they weren't unaccepting, they just had to get used to me, I guess. They liked me, but they didn't know quite what to make of me at first."

"The family travelled a lot and this was one of the reasons it was very nice staying with them. I saw a lot of interesting things by travelling around with them. We went out of the locality almost every weekend. Sometimes we would go up to New York City. Often we would visit historical sites in the area. The man of the family was very interested in history, and spent a lot of time visiting these sites. At Thanksgiving I went to California with them for two days and visited their relatives out there. Often we camped as we travelled, and I enjoyed this a great deal. We stayed for a week in Kansas one time, and visited their relatives, and also went to some of the schools in Kansas to observe how they were teaching and what these schools were like. While I was in Kansas I also visited the American Friends Service Committee University."

"The neighborhood in which I lived was all white. At first, the people would 'look' at me, but I soon became friendly with some of the neighbors and would even baby-sit for their children. The children in the neighborhood became friendly toward me after awhile, but they had to get used to my being there and didn't try to become friendly right at first. I went to an integrated school about four-five miles away from where I lived. School was pretty hard, and I really had to get down to work and study. Ann and John (the man and woman of the family with whom I stayed) were very concerned about grades and I had to do well. My teachers were all white except two. The majority of the school was white. In the school, most of the Negro kids would look at me and didn't know what to make of my living with a white family. On the whole, though, I got on very well with the kids, both white and Negro, in the school. I really liked that school, and wish I could have stayed there."

"The family with whom I lived were Quaker. I really liked the Quaker worship. I am Baptist, myself, but I went to the Quaker services while I was in Baltimore. I liked to go there also because I liked the Quakers as people, and because I had a chance to meet people."

"As I mentioned, it was a bit difficult at first getting acquainted in the neighborhood. Sue, the girl next door did not know how to accept me at first, but we became good friends later. Many of the adults in the neighborhood never did accept me fully. Some of them were old Southern people, and they did not really like me very much possibly because I was friendly with a white girl and I guess they just couldn't understand or accept this. They were polite, but that was all."

"The family with whom I stayed were so very nice. They kind of softened me up, and helped me and made me want to help someone else in turn. I don't know just what it was, but they did something to me that has changed my outlook. I was a bit 'hard headed' before, and usually thought more of myself than of anyone else. But their helping me made me see that it is good to help other

> people too. Going away to school and staying with this family was the greatest thing that ever happened to me. After living with a white family I found that I was not color-conscious anymore, where I had been before. The only time I really thought about color was when we were travelling---sometimes strangers would really stare at us and this reminded me again that I was Negro. I was never made to feel that way by the family with whom I stayed, though."
>
> "I intend to join the Peace Corps when I finish a 26-week training program in electrical appliances which I am starting as soon as I graduate this June. I think it is a good idea to have some kind of a trade at which I can work if I ever need to. I doubt if this trade will help me much in the Peace Corps, but I still want to have it. I would like to go to some part of India with the Corps, and I hope I can do some work in human relations and agriculture while there. I want to help people in any way that I can, and this seems to be the way that I can do this best."

The young man above had experienced some difficulty in adjusting to and being accepted by white members of the community. Most of our subjects who had lived in close proximity to white people did not indicate that they had much difficulty in this respect, and some appeared to be almost astonished at their favorable reception. One girl who had attended school at Berea College in Kentucky as one of three Negro students in her dormitory, found herself to be so very well accepted by the white students and teachers that she hopes to return there to enter a nursing program. One boy who attended a military academy in Virginia expressed amazement that both Negro and white students at this school, Northern and Southern alike, could sit down and objectively discuss racial issues without a "show of prejudice."

Many of the host families had children approximately the same age as the students and this seemed to render it easier to make the adjustment to the new environment. Other subjects found that the younger children in the host family "were about the same age as my own brothers and sisters at home, and I felt toward them as I did toward my own family." In most instances the girls helped the woman of the house, and related very well to her, thinking of her as a friend and companion. The boys related well to the host-fathers, and perceived them as firm friends as well as parental figures. Both boys and girls had their own tasks to perform about the house, and the families with whom the young people stayed apparently endeavored to foster a sense of responsiblity toward both work and school, and to establish a basically friendly and accepting atmosphere.

Another concern was with the influence the host parents might have had in regard to choice of vocation on the part of the subjects. Many of the students have selected future occupations that were the same as, or closely related to, those of the host parents. These subjects have apparently chosen these people as reference figures in respect to vocations and personal living, and, because of their close contact with members of professional occupations have come to realize that a particular vocation is actually open to them; that one of their racial background is able to succeed financially and soically in that occupation. Most of the young people who selected occupations in the professional fields did not derive from a professional background, and in most instances one or both of the parents had only a grade school education and were employed in lower level jobs. Three of the mothers had a grade school education; two had completed high school; two had completed college. Of the fathers, five possessed a grade school education, one had completed high school, and one had completed college. Occupationally, the mothers of these children were represented by two teachers, two full-time housewives, a worker in the school cafeteria, a cook who had been a secretary, a driver of a school bus, and one domestic. One of the fathers owned his own upholstery business, four were laborers (one in the local shoe factory, one on the railroad, one in construction, and one in the mines), one was a minister, and one a farmer. In contrast, the young people indicated that they intended to pursue the following occupations upon graduation from high school:

A political affairs major at George Washington University;

A social worker in Prince Edward County;

A member of the Peace Corps after completing a training program in electrical appliances;

A mortician;

An electrical or mechanical engineer;

A corporation attorney;

A nurse;

A secretary;

Members of families with whom these young people had stayed included the following occupations: (some children stayed with more than one host family while away at school)

5 housewives;

1 secretary;

1 teacher;

1 vice president of a university;

1 employee in the Social Security Bureau;

1 mortician;

1 man in the advertising field;

2 electrical engineers;

1 technical writer in electronics;

1 machinist;

1 lieutenant in the United States Navy. Some of the subjects stayed with families whose members included young people who were college graduates or who were at the time attending a university, whereas the subjects' own families had not included older boys and girls in college. The presence of college students and graduates in the host families undoubtedly influenced the subjects to raise their educational and vocational aspirations. Most of the subjects intended to enter college themselves.

Not only did the families with whom subjects stayed apparently influence them in regard to occupational choices at least to the extent of helping them to raise their aspirational levels, but they also helped to mold student attitudes and values. The subject whose interview was quoted above, for example, felt that the family with whom he had stayed had greatly influenced his attitudes toward himself and toward others, and partly because of this, he intended to become a member of the Peace Corps so that he could "help other people".

Without exception, the subjects interviewed were very positive that they would be able to realize their educational and occupational goals. Their greatest concern was with maintaining a high grade point average both in high school and in college. Only one student mentioned lack of financial aid as a possible impediment to realizing his goal. The subjects were very definite regarding what they wanted to do occupationally, and in most instances were able to express fully why they had chosen any particular occupation as a life work. All subjects were very realistic regarding the amount of education required to achieve any particular occupational goal. In general, these young people possessed high aspirations both educationally and occupationally, and all but two intended to enter some profession. Most of the subjects wished to leave the County to go to school and work where they would have more opportunities. Many wanted to return to the city or town in which they had stayed while away at school, and hoped to attend a college located in that city. They indicated that they already knew people in these areas, that they had friends there, and knew people who would be willing to help them realize their goals. Once having been away from Prince Edward County, they tended to view the County in a different perspective. They noted, even more acutely, its limitations, its lack of socio-economic opportunities, and wished to leave as quickly as possible after completing high school. Some considered themselves to have become sophisticated beyond whatever advantages the County might have to offer, and felt life in the County to be uninteresting and lacking in challenge. One can "only stand still" here, as one subject expressed it. Only one subject recognized a challenge in the County; this was a girl who wanted to become a social worker so that she could return to Prince Edward County and work toward making it a happier and better place in which to live. She felt that this would be doing a service not only to her people but to the State of Virginia as a whole, and that the upgrading of Negro life and opportunity would contribute to the betterment of all. "I might not live to see this come about", she stated, "but my grandchildren will. And somebody has to be willing to start."

The majority of the subjects interviewed considered school away from home as "o.k., about the same as school anywhere in that we had lessons to do and home work to complete, and we had to study hard." Two subjects found the school away from home to be more difficult than it had been in Prince Edward County, and one subject rated the school she had attended as so excellent that she would have liked to continue there. All of the schools attended by our subjects while living with host parents were integrated, both as to student body and faculty. An aspect of the "new" school most often expressed by our subjects, was the fact that it offered an extensive and interesting variety of activities (basketball, football, clubs, teams, and other activities) that were either not present at all in the Prince Edward County schools before their closure or present to a limited degree. All of the students enjoyed school-based activities, but one young lady who had attended Berea College as a foundation student and who had lived in a dormitory on campus encountered a most interesting social and academic life:

> "I lived in a dormitory, and most of the students at the dorm were white. I roomed with my sister at the dorm. Our house mother was real sweet, very nice to all of us. I enjoyed being there, and all the girls were very nice. We could go out on weekends. The house mother lived in Berea and would invite us to her home where we would sit around and talk and eat watermelon or pop corn. She would take us to the games and on school trips. We enjoyed a great many activities, and had a very nice basement at the school where we could have parties and dances. Often, we would go to other girls' homes for the weekend and have parties. Most of the girls in the dorm were white, and we all went around together; this was very much different than it is in Prince Edward County. The greatest thing that happened to me while I was away at school was being in so many activities where I had never been before when I was in the County. I was President of the dormitory, I was on the Student Executive Social Committee, and I worked three hours a day in food services just to have something to do. Later I worked as a hostess in the hall two or three days a week and every other weekend. While working at this, sometimes we would all get together and study, the Dean of Women would come over and we would sit and talk. The Dean might invite us all to her room where we would have dinner and help with the cooking ourselves. This was fun, I thought, and a regular party."

With the exception of one subject, the students got along very well with their teachers, both Negro and white. The one exception commented that his teacher was "not very good, and about 70 percent of the class couldn't get along with him, either, so I didn't consider myself unusual in this respect."

The interviews suggested that living away from home among predominantly professional people, attending schools that offered a variety of activities and experiencing a fresh environment were enlightening and worthwhile experiences for the children involved. They apparently profited by them to the extent of having accepted new educational and occupational goals and values.

Schooling and General Academic Achievement

Aberrations in normal school attendance should be reflected in children's acquisition of school-related concepts and skills. Standardized achievement tests, therefore, should be affected to a great extent when schooling is absent or interrupted because these tests are intimately linked to learnings which are commonly acquired in school. Thus, it was expected that the children's educational history should have been manifested very clearly in their achievement test scores.

Stanford Achievement Test Results

The Stanford Achievement Test (form N) was administered to PEC children of age 11 and above. One hundred and fifty-four children of the NO EDUCATION group, 125 children in the EDUCATION group, and 338 children from the OTHER COUNTY group form the basis of the following comparisons.

The purpose of the analysis was to ascertain:

1. The effect of school deprivation on each achievement subtest

score.

2. The relationship between period of deprivation and subtest achievement score.
3. A characterization of each group as to their general academic achievement.

Comparisons between the EDUCATION, NO EDUCATION, and OTHER COUNTY groups were completed using age at the time of test administration as the primary classification. Although interpretations of achievement are not usually oriented primarily around age, this categorization was necessary because many PEC children could not be classified into grade groups; age rather than an arbitrary assignment to a grade level ensured a more adequate comparison of the three groups.

Regression Analysis of the Stanford Achievement Test Scores

The observed linearity of grade equivalent score increases with age suggested regression analysis as a method of organizing the comparisons of the three educational groups.

The means and standard deviations of the three groups on each subtest are presented in Appendix E. Graphic presentation of the regression analysis are shown in figures 1 - 6. In each figure the results are given for the two PEC groups and the OTHER COUNTY sample. The slopes of all the regression lines shown in these figures are significantly different from zero.

Inspection of the results for the six subtests reveals certain overall trends. Perhaps most striking is the regularity of the data from subtest to subtest, especially the suppressed development of achievement for both PEC groups, but particularly with the NO EDUCATION group. Overall the subtests and the effects of non-schooling were quite pronounced. The means at the older age levels in the OTHER COUNTY, while not high by northern standards (e.g. the test norms) were frequently at 8th and 9th grade equivalents.

The presence of two more or less unavoidable sampling errors is also apparent. The first is the abrupt rise in mean subtest score in the 16 and 17-year age group in the OTHER COUNTY sample. The increase in grade equivalent was possibly due to selection factors operating at age 16 in schools serving families at the lower socio-economic levels in that only the brightest, more highly motivated children remained in school. The same factor in reverse may have operated in the PEC samples, especially the EDUCATION sample, where the more advanced older students may not have been in the area at the time of testing.

Paragraph and Word Meaning Analysis

The paragraph meaning and word meaning subtests (Figures 1 and 2) are discussed together since both involve reading skills, and the results for both were similar. The finding that the EDUCATION sample is midway between the OTHER COUNTY and the NO EDUCATION sample is reasonable considering that the median number years of education outside the county since 1959 was nearly two years. The regression line of the EDUCATION sample parallels that of the NO EDUCATION line. On the other hand, the results for the Language Subtests (Figure 3), another aspect of verbal development, suggest nearly parallel verbal development in all three samples. Also the achievement scores of the NO EDUCATION sample appear more depressed on this subtest than on the other two verbal measures.

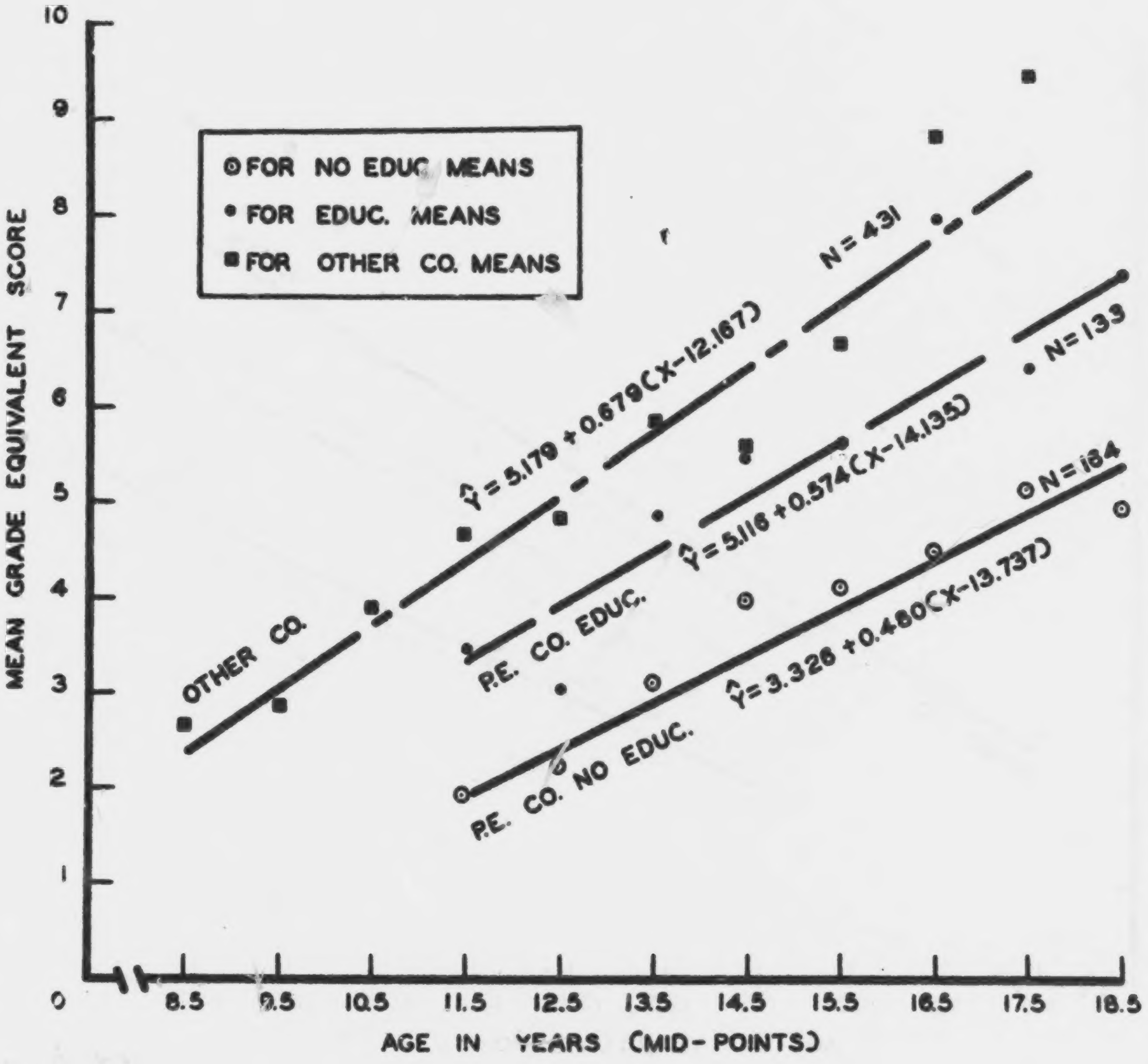


Fig. 1 Regression of Grade Equivalent Score on Age for the Stanford Achievement Paragraph Meaning Subtest.

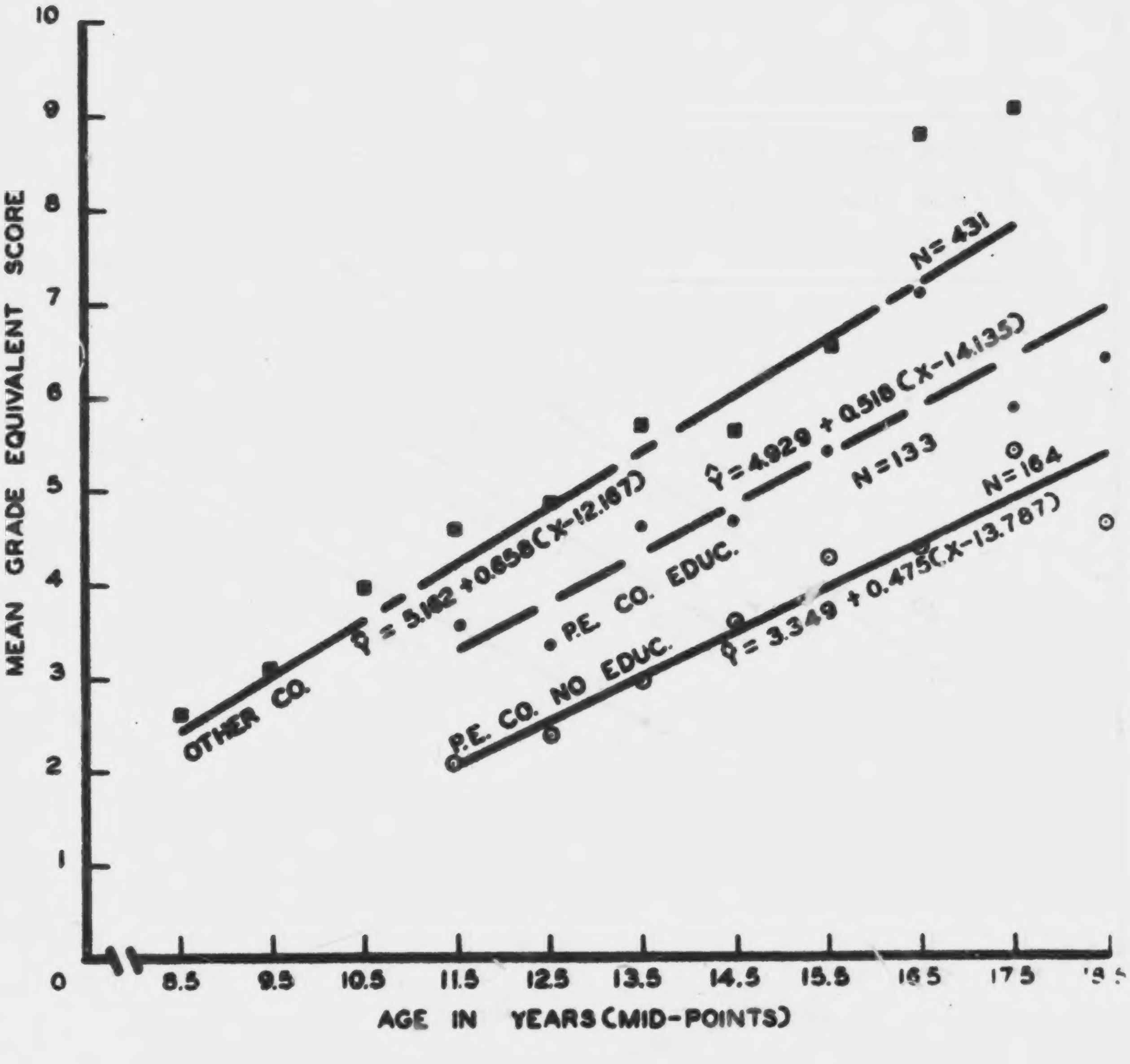


Fig. 2 Regression of Grade Equivalent Score on Age for the Stanford Achievement Word Meaning Subtest.

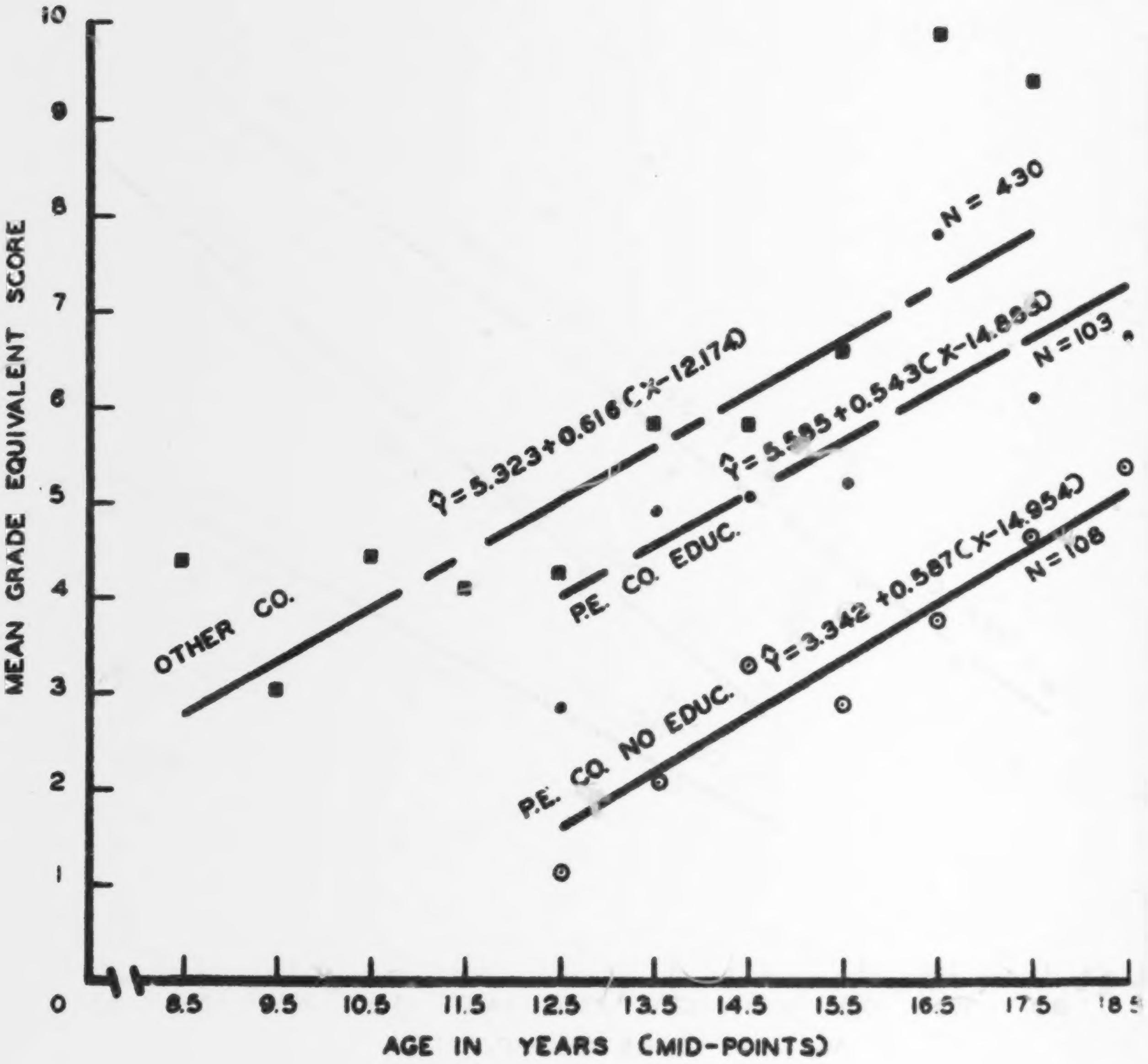


Fig. 3 Regression of Grade Equivalent Score on Age for the Stanford Achievement Language Subtest.

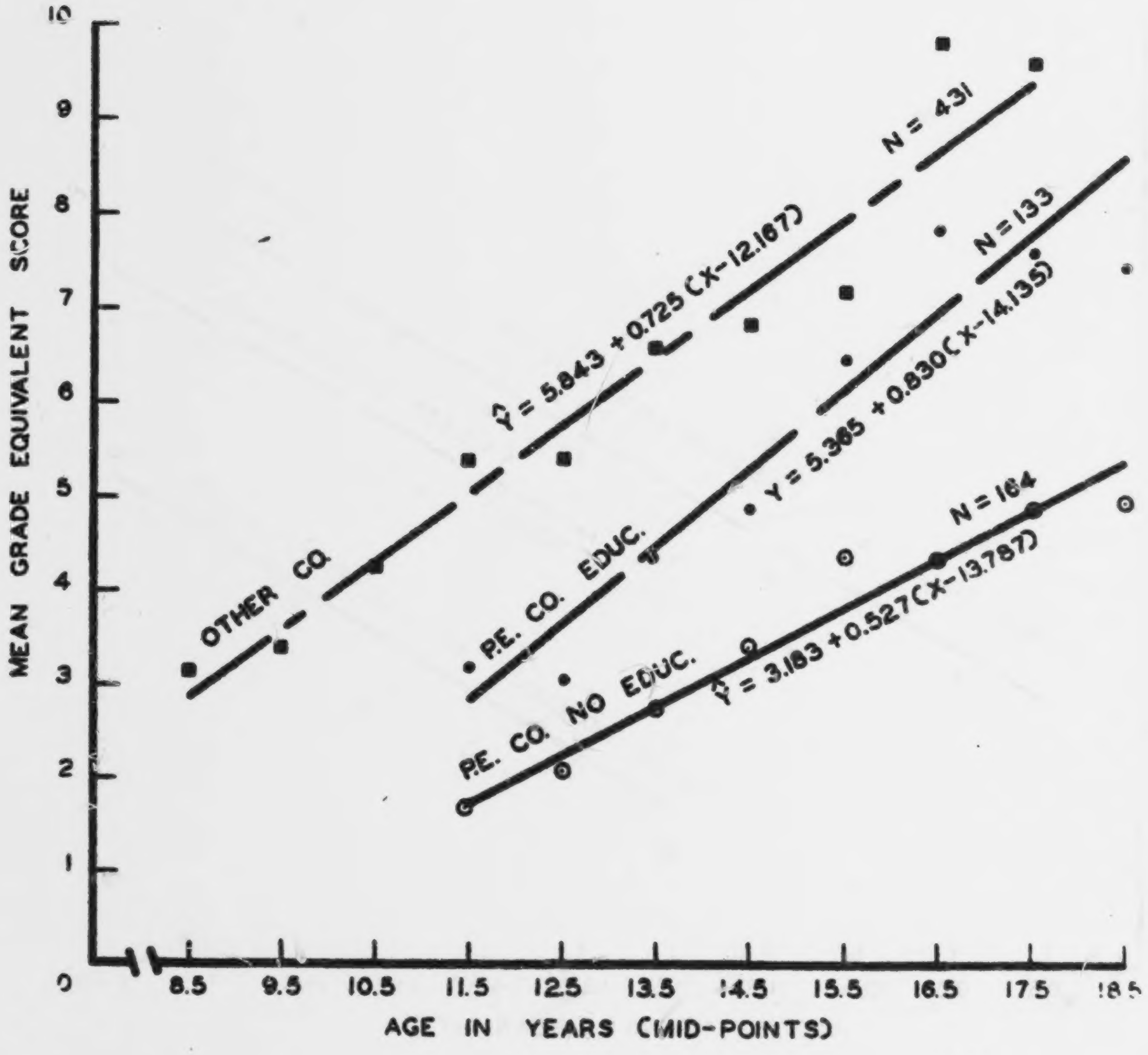


Fig. 4 Regression of Grade Equivalent Score on Age for the Stanford Achievement Spelling Subtest.

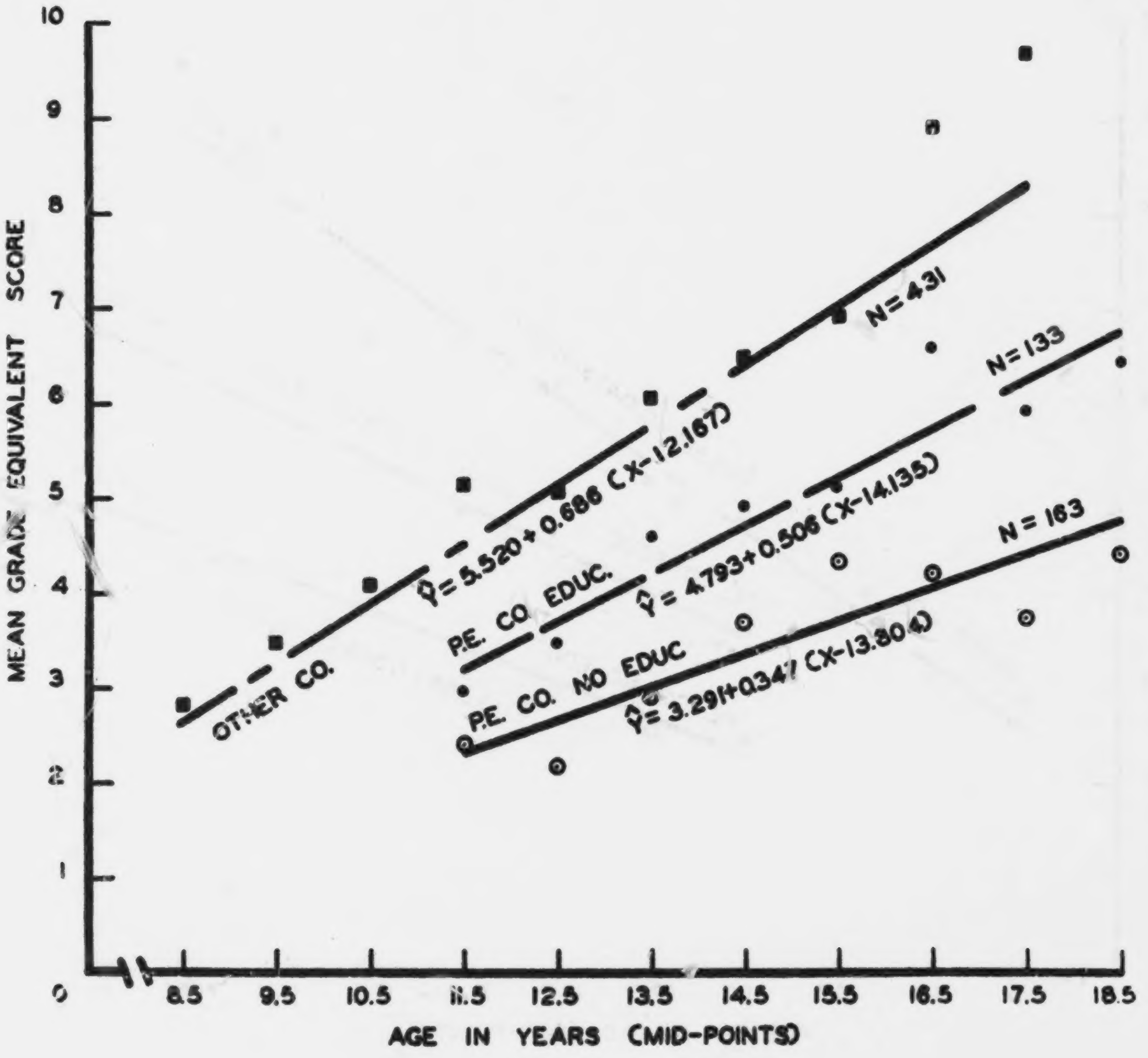


Fig. 5 Regression of Grade Equivalent Score on Age for the Stanford Achievement Arithmetic Reasoning Subtest.

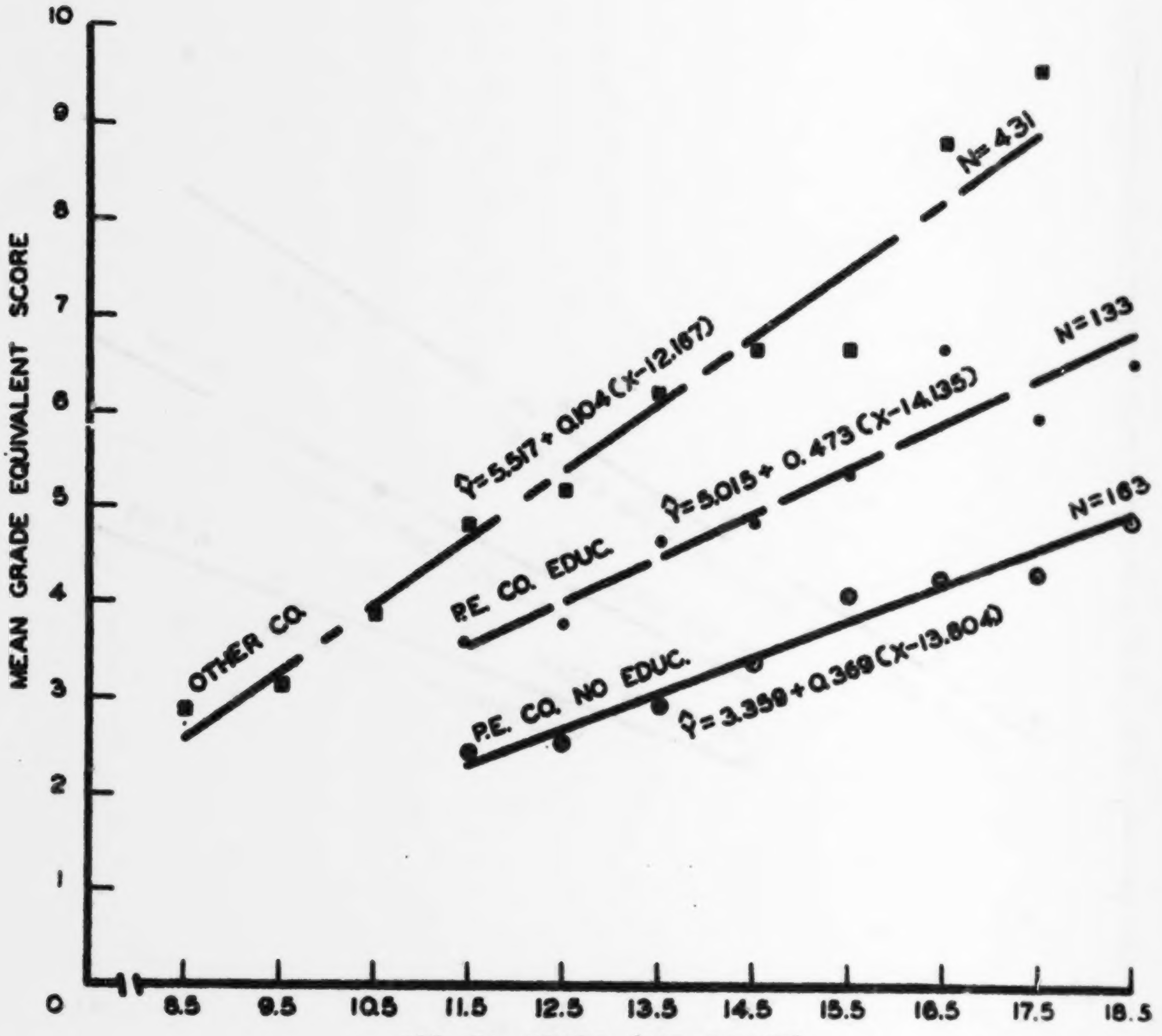


Fig. 6 Regression of Grade Equivalent Score on Age for the Stanford Achievement Arithmetic Comprehension Subtest.

In Figure 4 the results for the Spelling subtest are shown. Performance differences between the EDUCATION and NO EDUCATION groups and the OTHER COUNTY appear to be rather large at the early ages. This would tend to indicate that spelling skills are tied rather closely to early schooling. The performance in spelling of the EDUCATION group approached the performance of the OTHER COUNTY group at the upper age levels which indicates that this skill is appropriated early in school, but that some schooling is somewhat necessary to continue the skill level. Because many of the older children of the NO EDUCATION group had schooling prior to the school closing (during periods of potentially greater development) the approach in score to the OTHER COUNTY group is reasonable.

Figures 5 and 6 show the results for the Arithmetic Reasoning and Computation subtests, respectively. The two PEC samples have regression lines more similar to each other than to the OTHER COUNTY sample in both cases: Although the results are clearer for computation than for reasoning, arithmetic skills as well as spelling, are school-centered activities and as such might be expected to show considerable effects from non-schooling.

The intercorrelations of subtest scores indicate that all the subtests were substantially interrelated. The coefficient ranged from .66 to .84.[23] These correlations are reproduced in Appendix E. The grade equivalent scores were weighted assuming an increase of 1.0 grade equivalent units with an increase of one year in age. This procedure led to a significant correlation of age with achievement score in both arithmetic subtests (r = +.33), and slightly negative relationships with word meaning and paragraph meaning (r = -.14). This occurred even though the relationship of age with I.Q. score was negligible (r = +.03). I.Q. scores were related to achievement scores nearly to the same degree that achievement scores were related to each other.

---

[23] The correlations were computed on a group of 124 subjects (age 11-17) who had been administered both achievement and intelligence tests.

The overall effect of non-schooling on each of the achievement subtests was clearly demonstrated in Figures 1 - 6. Grade equivalent scores, however, have a serious deficiency in that units at different points in the scale are not equal. The Stanford Achievement Test manual suggests that a derived score, the K score, possesses units which are approximately equal at different points on the scale.[24]

In the following analysis two age levels were used to illuminate relationships between age, education, and achievement. Eleven and seventeen were chosen as the age limits because they represented the youngest and oldest age groups at which sufficient numbers of children were included in the analysis.

Mean grade equivalent scores at these two age levels were estimated using the regression equations shown in Figures 1 - 6. This procedure has the advantage of using the collective trend of all the grade equivalent scores and corrects somewhat for random errors at these two age levels. These estimated grade equivalent scores were then converted into K scores using Table 6 in the Stanford Achievement Test manual (Elementary level). These estimated grade equivalent scores and K scores are presented in Table 4.46.

---

[24] For discussion of the K score, see page 14 of the Elementary manual.

Table 4.46

Mean Grade Equivalent Stanford Achievement Subtest Scores Estimated from the Regression Equations for Three Educational Classifications at Two Age Levels

	Age 11			Age 17		
Subtest	NO EDUC	EDUC	OTHER CO	NO EDUC	EDUC	OTHER CO
Paragraph Meaning	2.0 69.1	3.3 72.5	4.4 76.2	4.9 78.0	6.8 86.0	8.5 93.8
Word Meaning	2.0 62.1	3.3 66.4	4.4 70.3	4.9 72.2	6.4 78.2	8.3 88.7
Spelling	1.7 63.6	2.8 72.5	5.0 85.9	4.9 85.4	7.7 97.7	9.3 101.8
Language	1.0 73.8	3.5 86.9	4.6 91.7	4.5 91.4	6.7 97.7	8.3 100.6
Arithmetic Reasoning	2.3 54.7	3.2 59.4	4.7 67.6	4.3 65.4	6.2 75.8	8.8 94.0
Arithmetic Computation	2.3 32.3	3.5 35.0	4.7 40.0	4.5 39.2	6.4 55.2	8.9 90.2

Note: The top figure in each cell is the grade equivalent; The bottom figure in each cell is the K score.

In the K score analysis, three comparisons were made. The NO EDUCATION group was compared with the OTHER COUNTY sample. The EDUCATION group was compared with the OTHER COUNTY group and the NO EDUCATION group was compared with the EDUCATION group. The NO EDUCATION group represents the complete absence of education for four years. The EDUCATION group can be considered to have intermittent or partial education and the OTHER COUNTY represents uninterrupted education. Differences among the three groups were interpreted using the previous distinctions.

1. NO EDUCATION - OTHER COUNTY Comparison

   a. K score differences in reading skills (paragraph meaning and word meaning) are moderate at age 11, somewhat larger at age 17.

   b. Large K score differences in spelling and language usage exist at age 11, compared to the differences at age 17.

   c. The K score differences between the two groups in arithmetic skills are very large at age 17, and are small for arithmetic computation at age 11. Arithmetic reasoning differences are fairly large at age 11.

Spelling and language were apparently affected by education at all age levels, but somewhat less at the upper level, implying that educational deprivation at early ages was more influential.

Reading skills shown were also affected at both age levels, but apparently schooling had a greater impact at the upper age levels. For arithmetic skills, schooling later than age 11 seemed particularly influential. Although there were differences at age 11, these were minor compared to the differences at age 17.

2. EDUCATION - OTHER COUNTY Comparisons

The results of this comparison can be summarized in the following statements.

   a. Reading scores were similar at age 11, moderately different at age 17.

   b. Spelling scores were moderately different at age 11, very similar at age 17. Language usuage scores were similar at both age levels.

   c. Arithmetic scores were moderately different at 11, highly different at age 17.

One implication of these results is that intermittent education after age 11, seemed sufficient for language, spelling, paragraph meaning, and word meaning skill development. Prior to age 11, partial education seemed to be nearly as efficient as continuing education for paragraph meaning, word meaning, arithmetic computation, and language.

3. EDUCATION - NO EDUCATION Comparison

The following results emerged from comparisons between the EDUCATION and NO EDUCATION groups.

a. Except for spelling and language, the differences in subtest scores at age 11 were very minimal.

b. At age 17, the scores on all subtests were moderately different. They were most pronounced for spelling and arithmetic computation, least evident in word meaning and language.

Spelling apparently was greatly affected at early age levels, while arithmetic computation skills were affected by later absences of schooling.

The analyses performed above indicate that the lack of schooling has had a severe effect on the achievement level of PEC children. It was also indicated that differences in scores are more pronounced in some subtests than in others. However, this is not particularly surprising since the various skills are acquired at different ages. According to the Stanford test manual, large gains in spelling are made between the first and the fifth grades, while small gains are made in this period for arithmetic computation. Achievement in arithmetic computation is acquired between the sixth and the ninth grades. Language achievement is greater in the first four grades than in grades five through ten. The acquisition of word meaning is greater in the higher grades. Paragraph meaning and arithmetic reasoning is approximately equal throughout the entire range.

A third analysis was performed in which norm group performance of selected grade levels was compared with the achievement of the samples of the study. The norm group which had a K score in paragraph meaning equal to the K score of the particular sample was chosen; e.g., the eleven-year-old NO EDUCATION sample had a K score of 69.1.[25] The national norm group of 2.0 grade level had a similar score. All other subtests were assigned K scores of the 2.0 grade level. The norm group performance of 3.5 level was used for the eleven year EDUCATION sample and others were similarly assigned. They are reproduced in Table 4.48.

It can be seen that, at age 11, the performance of the NO EDUCATION group was low in Language as expected, but Spelling, although lower, was not influenced to a great degree. However, differences in Spelling at this age level were apparent for the EDUCATION group. Corresponding to this, the OTHER COUNTY group had higher scores than the norm group on both of these subtests. Other deviations at age 11 for the other subtests were quite small.

At age 17 where differences in arithmetic computation should be evident, the difference was most apparent in the EDUCATION group, although the NO EDUCATION group performance was lower than that of the norm group. As expected, Spelling and Language scores were not lower and in most cases were higher than the norm group for both the EDUCATION and NO EDUCATION groups. Arithmetic reasoning scores were lower for both PEC groups and higher in the OTHER COUNTY group. Word meaning scores did not show differences which would be expected at this higher age level.

---

[25] This K score is the same as the one in Table 4.46 and was calculated from estimated grade equivalent previously computed.

Table 4.47

Comparisons of K Scores of NO EDUCATION, EDUCATION, OTHER COUNTY Samples With Performance of Selected Norm Groups at Various Grade Levels

	Stanford Tests*					
	1	2	3	4	5	6
NO EDUCATION	69.1	62.1	63.6	73.8	54.7	32.3
Norm grade 2.0	69.1	61.8	64.4	77.8	53.0	32.0
EDUCATION	72.5	66.4	72.5	86.4	59.4	35.0
Norm grade 3.5	72.5	66.4	76.0	85.0	60.5	34.6
OTHER COUNTY	76.2	70.3	85.9	91.7	67.6	40.0
Norm grade 4.4	76.2	69.3	81.0	89.7	64.8	38.3
NO EDUCATION	78.0	72.2	85.4	91.4	65.4	39.2
Norm grade 5.1	78.0	71.8	84.9	92.1	68.9	41.9
EDUCATION	86.0	78.2	97.7	97.7	75.8	55.2
Norm grade 7.3	86.0	80.0	95.3	97.9	80.7	65.3
OTHER COUNTY	93.8	88.7	101.8	100.6	94.0	90.2
Norm grade 9.0	93.8	90.2	100.2	100.9	92.7	86.3

*1. Paragraph Meaning
 2. Word Meaning
 3. Spelling
 4. Language
 5. Arithmetic Reasoning
 6. Arithmetic Computation

Summary

The investigation of the effect of non-schooling on educational achievement was completed using three somewhat distinct methods of analysis. In the first procedure, the regression of grade equivalent scores on age for the three education groups was calculated for each subtest of the

Stanford Achievement Test. The positions and slopes of the regression lines indicated that:

1. Achievement in all areas was depressed by the lack of education.
2. Reading scores (Paragraph Meaning and Word Meaning) were affected at all age levels but Word Meaning was not severely affected as Paragraph Meaning.
3. Seplling skills were more severely affected than other tests at all age levels. Language scores were quite variable, but in general showed greater differences at early ages than at later. On this latter subtest the EDUCATION group appeared to be more similar to the OTHER COUNTY sample than to the NO EDUCATION sample.
4. Arithmetic skills (reasoning and computation) showed increasingly greater effects at older age levels. Arithmetic Computation was especially affected at the upper age levels.

In a second procedure the mean grade equivalent scores computed from the regression equations were converted to K scores at two age levels. Comparisons of K scores for each subtest between the different educational classifications revealed certain trends.

1. Reading scores were somewhat more affected by later rather than earlier education, but showed nmoderate effects at all ages.
2. Spelling and language were affected most severely at earlier ages. Spelling was apparently affected by later educational deficits.
3. Arithmetic Reasoning and Computation showed severe effects at upper age levels. Reasoning was affected somewhat more than Computation at earlier ages.
4. Intermittent education seemed to be somewhat effective for spelling

and language, but less effective for arithmetic skill development. For reading, intermittent education was moderately effective.

A third procedure involved the comparisons of the computed K scores for eleven- and seventeen-year-old children with average K scores of norm groups of similar achievement. This procedure uses the standardization group as a control in that the K scores were derived from typical performance of school-age children. This analysis indicated that age at school deprivation is more important in some achievement areas than in others. Educational deficits are reflected in spelling and language skills at early ages while arithmetic abilities show effects at later ages.

The average achievement level of eleven-year-old PEC children is similar to the achievement level of the norm group of grade 2.0 to 3.5. At age seventeen the achievement level range is approximately from the fifth grade to the middle of the seventh grade. The performance of the comparison county group ranges from one to two grade levels higher than the PEC EDUCATION group. Its superiority is 2.5 to 4.0 grade levels above the NO EDUCATION group.

Reading Achievement of Older Children

The various reading skills were measured with the Iowa Silent Reading Test. This test assesses achievement in eight areas ranging from speed of reading to alphabetizing and indexing skills. Fifty-seven children in the EDUCATION group and fifty-two children in the NO EDUCATION group between the ages of 14 and 16 were tested. Fifty-two children in the OTHER COUNTY who were in the seventh grade when tested were compared with students in these two groups.

Table 4.48

Means and Standard Deviations
Of Iowa Silent Reading Test Subtest Grade Equivalent Scores
For Prince Edward County
EDUCATION and NO EDUCATION Groups (14-16-Year Olds)
And OTHER COUNTY Seventh Graders

Subtest	No Education Mean	 S.D.	Group Education Mean	 S.D.	Other County Mean	 S.D.
Rate	3.16	3.35	5.20	4.54	6.67	3.29
Comprehension	2.84	2.35	5.35	2.79	6.91	2.82
Directed Reading	2.80	1.83	6.02	3.22	7.82	2.66
Word Meaning	3.77	2.16	6.74	2.65	6.32	2.07
Paragraph Comprehension	3.39	1.99	6.03	2.79	6.83	2.77
Sentence Meaning	3.51	2.46	6.46	2.63	5.32	2.92
Alphabetizing	2.99	1.70	7.96	4.34	10.62	3.26
Use of Index	3.48	1.80	6.97	3.45	7.48	2.46

The mean subtest scores of the three groups are shown in Table 4.49. All the mean scores of the NO EDUCATION and OTHER COUNTY groups were significantly different from each other as were all the differences between the EDUCATION and NO EDUCATION groups. The mean subtest scores of the EDUCATION and OTHER COUNTY groups were not all significantly different. Using the .05 confidence level as a cut-off point, only the Comprehension, Directed Reading, Alphabetizing, and Sentence Meaning subtests scores were significantly different. Table 4.49 shows the "t" tests for the various comparisons.

Table 4.49

"t" Ratios for Subtest Comparisons
Of NO EDUCATION, EDUCATION, and OTHER COUNTY Groups
On the Iowa Silent Reading Test

Subtest	No Ed. vs Ed.	No Ed. vs Other Co.	Ed. vs Other Co.
Rate	-2.72*	- 5.40*	-1.96
Comprehension	-5.12*	- 8.14*	-3.16*
Directed Reading	-6.57*	-11.16*	-3.16*
Word Meaning	-6.46*	- 6.22*	+ .93
Paragraph Comprehension	-5.74*	- 7.32*	-1.48
Sentence Meaning	-6.15*	- 3.48*	+2.15*
Alphabetizing	-8.02*	-14.96*	-3.64*
Use of Index	-6.71*	- 9.50*	- .89

*Significant at .05 level. Degrees of freedom corrected for the total number of comparisons.

The differences between the NO EDUCATION group and the students who have had some education was clearly demonstrated. However, children of the 14 to 16 age group with some interim education approached the reading achievement level of the OTHER COUNTY seventh grade group.

In two subtests, the scores of the EDUCATION group actually exceeded the seventh grade performance of students in the OTHER COUNTY. These subtests were Word Meaning and Sentence Meaning. The intercorrelation of the subtest scores gave little indication as to why these two tests should not show the effect of schooling. The correlation was moderately high ($r = +.53$) but other subtests were more highly related.

One of the possible reasons is that these two subtests are the least complicated of the tasks in the Iowa test. Furthermore, they both assess knowledge which was gained prior to the test situation, i.e. the meanings of words and sentences are not contingent on information given in the tests. In some of the other tasks the correct response depends on information given in the content of the paragraph. This is somewhat contrary to expectations, since knowledge which was independent of the test should have been most seriously affected by education.

The difference in effects may then be due primarily to the more difficult responses of the other subtests. The tests require, in many cases, a comparison of information in the test question and some preceding paragraph. With the generally slower rate of reading, these complicated responses may have been much slower than those involved in Word Meaning or Sentence Meaning.

The Iowa Silent Reading Test, where applied to the EDUCATION, NO EDUCATION, and OTHER COUNTY groups showed results similar to that of the Stanford Achievement Tests. The EDUCATION group was more similar to the OTHER COUNTY group than to the NO EDUCATION group. The Word Meaning subtest of both the Stanford test and the Iowa test showed the least influence of education.

Time Telling Abilities

This analysis was performed in an effort to assess the effects of no exposure to formal education on the development of the concept of time. Concepts of time were measured with a test developed by Glaser, Reynolds, and Weinstein.[26,27] A sample of 104 five- to eighteen-year-old PEC Negro youths were compared to a similar sample of Negro youths from the OTHER COUNTY group. The latter sample consisted of 113 students from school grades one through four.

The PEC and OTHER COUNTY data are summarized in Tables 4.50 and 4.51, respectively. There was an extreme amount of variation in the time-telling abilities with both the PEC and OTHER COUNTY samples. This suggests a broad range of time-telling abilities within the two samples of Negro youths. Furthermore, (Table 4.50) none of the 5-, 6-, 7-year-olds in the PEC sample could tell time, while (Table 4.51) some of the OTHER COUNTY first and second graders, who probably were in the five through seven age group, were able to tell time. This finding suggests that no exposure to formal education impedes the early development of concepts of time.

Within the sample comparisons were performed to observe the age and grade levels at which significant improvement in time-telling abilities occurs. These data are presented in Tables 4.52 and 4.53. A significant

---

[26] Robert Glaser, James H. Reynolds, and Ira P. Weinstein, Time Telling: A Teacher-Student Programmed Sequence, Cooperative Research Branch, U.S. Office of Education.

[27] Ira Weinstein, in a personal communication, has pointed out that the paper and pencil test of time-telling did not always yield results equivalent to those achieved by exposing children to an actual clock. Therefore, performance in this test is a function of transfer to a two-dimensional (on paper) clock as well as time-telling skill alone.

Table 4.50

PRINCE EDWARD COUNTY

Mean Percentages of Items Correct on Time Telling Test
For Ages Five through Eighteen

Age	N	Mean % Correct	Standard Deviation
5	3	0	0
6	5	0	0
7	6	0	0
8	5	27.6	80.2
9	15	30.9	133.3
10	12	55.1	132.1
11	7	44.1	80.7
12	16	48.3	132.0
13	10	67.8	102.6
14	9	65.7	81.8
15	6	69.5	56.0
16	5	83.6	23.7
17 & 18	5	80.0	55.9

Table 4.51

OTHER COUNTY

Mean Percentages of Items Correct on Time Telling Test
For Grades One through Four

Grade	N	Mean % Correct	Standard Deviation
1	28	4.3	21.1
2	24	10.9	85.5
3	26	34.5	165.5
4	35	87.2	109.4

improvement in time-telling abilities first occurs at the third grade level (approximate age = 8) among the Negro children of OTHER COUNTY, while the age at which a significant improvement in time-telling abilities first occurs among PEC Negro children is fourteen. In short, the data show a six-year discrepancy between the PEC and OTHER COUNTY Negro youths; the OTHER COUNTY youths, who had not been deprived of formal schooling performing like children in PEC who were six years older.

Table 4.52

Prince Edward County: Within Sample Comparison

Comparison by Age	t
5,6,7, vs 8	0.77
5,6,7, vs 9	0.89
5,6,7, vs 10	1.44
5,6,7, vs 11	1.44
5,6,7, vs 12	1.46
5,6,7, vs 13	2.09
5,6,7, vs 14	2.40*
14 vs 15	0.10
14 vs 16	0.61
14 vs 17 and 18	0.38

*$p < .05$

Table 4.53

OTHER COUNTY: Within Sample Comparison

Comparison by Grades	t
Grades 1 and 2	0.36
Grades 1 and 3	2.93**
Grades 1 and 4	4.38**
Grades 3 and 4	1.42

**$p < .01$

Table 4.54 shows comparisons between the two samples which indicate that five- through thirteen-year-old Negro youths in PEC are not significantly better at telling time than first and second graders in OTHER COUNTY. However, at least the fourteen- through eighteen-year-olds in PEC tell time significantly better than the first and second graders of OTHER COUNTY.

Table 4.54

OTHER COUNTY versus PRINCE EDWARD COUNTY

Comparison		Means		
OTHER COUNTY	PEC	OTHER COUNTY	PEC	t
Gr. 1 & 2	Age 5-13	7.3	38.2	0.77
Gr. 1 & 2	Age 14-18	7.3	73.0	2.38*
Gr. 3 & 4	Age 14-18	64.7	73.0	0.18

*$p < .05$

The fourteen- through eighteen-year-olds of PEC, however, did not tell time significantly better than the OTHER COUNTY third and fourth graders.

Summary

A sample of 104 five- to eighteen-year-old PEC Negro youths were compared to a similar sample of 104 Negro youths from a Virginia county (OTHER COUNTY) which closely approximated PEC. In OTHER COUNTY, significant improvement in time-telling performance over children just starting school was observed at the third grade level or approximately eight years of age. In PEC, on the other hand, significant improvement was not observed until age fourteen or approximately the ninth grade level. In short, performance on the time-telling test showed a six-year disadvantage for the children in PEC. The data showed a tremendous amount of variation in time-telling abilities within both counties.

Education and Intelligence

The influence of educational conditions on intelligence test scores has been recognized by many investigators. The extent of this influence has, however, never been completely determined, because experimental manipulation of children's education has never included school deprivation during school-age periods as one of the independent variables. For this reason the intelligence test scores of Prince Edward County children are of particular interest.

School attendance is a major aspect of the environment of most children between the ages of 6 and 18. The quality of this experience (e.g. urban versus rural education) has been shown to relate to measured intelligence level. A variety of skills acquired in school are usually considered to be part of a person's general intelligence. Hence, the absence of school experiences constitutes an environment which should severely limit the development of these skills and obliquely, the development of general intelligence.

In many ways, the environment of Prince Edward County children represented the polar extreme of what Bloom[28] would call a deprived educational environment. It was an environment where few modes of good language usage were available, and where there was little consistent and organized support for school related learning. The opposite extreme of a deprived environment is what Bloom labels an "abundant" educational environment. In the abundant environment there is much emphasis on the proper development of language and encouragement for the development of logical reasoning and abstract thinking. Although the total EDUCATION group probably would not be considered participants in the latter environment, their environment substantially differed from the NO EDUCATION group. The type of task performance required in school is much different than that required in farming or in helping parents care for their homes. Thus, it seemed plausible that the differences in environment between the two Prince Edward groups would be reflected in their intelligence test performance.

---

[28] Benjamin Bloom, Stability and Change in Human Characteristics, New York, London, and Sydney, John Wiley and Sons Inc., 1964.

Procedure

The Stanford-Binet Intelligence Test, California Test of Mental Maturity, and the Metropolitan Readiness Test were administered to a sample of Prince Edward County children, stratified on the basis of age, sex, urban-rural residence and the amount of formal education during the period in which the schools were closed. However, a number of practical problems arose which precluded the possibility of utilizing the stratified random sample in the statistical analysis. It was found that many more urban than rural children went away to school and the rural children who left the county for formal instruction did not return for the summer. Also, a number of students who were working away from home could not be located during the testing period. It was also discovered that more females than males fell within the EDUCATION category. The size of the EDUCATION - NO EDUCATION groups became disproportionate at the different age levels. Thus the rural-urban, male-female dichotomies were eliminated from the analysis.

After restricting the sample to groups classified by age and school attendance the analysis of the data was performed. As previously stated, the EDUCATION group consisted of children who had ½ to 4 years of schooling during the 1959-1963 period, and the NO EDUCATION group was composed of children who had no formal education during the same period. The average amount of formal schooling for the EDUCATION group was 1½ years for the 5 - 12-year-old group and 2 years for the 13 - 18-year age group.

The Stanford-Binet Intelligence Test (S-B) was administered to all age groups while the Metropolitan Readiness Test and the California Test of Mental Maturity (CTMM) were limited to children 6-10 and 12-14 years of age respectively. Further comparison of the Stanford-Binet Intelligence Quotients of our sample and a large sample of southeastern U.S. Negro children were posssible because of the large normative study of the S-B by Kennedy.[29]

Results - Stanford-Binet

Table 4.55 shows the S-B means for the EDUCATION-NO EDUCATION groups and Kennedy's sample of southeastern U.S. Negro children. The differences between the two PEC groups are presented in both means and medians. At some age levels the N's were small and the differences in individual I.Q.'s were somewhat large, hence medians rather than the means, more accurately describe the typical I.Q. for the given age level. An indication of the latter problem was evident at age nine with a median I.Q. of 92 and a mean of 100.09 for the EDUCATION group.

---

[29] Wallace A. Kennedy, Vernon VanDeRiet, James C. White Jr., The Standardization of the 1960 Revision of the Stanford-Binet Intelligence Scale on Negro Elementary-School Children in the Southeastern United States, Cooperative Research Project No. 954, Dec. 1961.

As indicated in Table 4.55, the EDUCATION group obtained higher mean I.Q.'s than the NO EDUCATION group over all age levels. The largest mean difference was found at the 7-, 8-, and 9-year age levels with a mean discrepancy ranging from 17 to 32 points. There was a difference between the two groups of approximately 17 points at year seven; 29 at age eight; and 32 points at age nine. The sizeable difference between the EDUCATION and NO EDUCATION group was not unexpected at these ages. Most of the NO EDUCATION group had never been to school.

The average measured intelligonce of the EDUCATION sample appeared to be about 80. The average measured intelligence for children in the NO EDUCATION group appeared to be about 80 prior to age 8 and about 65 after the 8-year age level.

Another interesting finding was the decline in I.Q. with age for both the EDUCATION and NO EDUCATION groups. (Due to the high variability of the sample, this decline was not statistically significant.) In other words, mental growth may not be consistent with chronological age growth, thus bringing about a depression in intelligence quotients.

Table 4.55

Stanford-Binet I.Q. Means and Medians by Chronological Age
For the EDUCATION and NO EDUCATION Groups and a Sample of Southern Negro Children

Age	EDUCATION Median	EDUCATION Mean I.Q.	N	NO EDUCATION Median	NO EDUCATION Mean I.Q.	N	Total Median	Total Mean I.Q.	N*	Kennedy Sample Mean I.Q.	N
5	95.0	95.00	2	77.0	76.14	7	79.5	80.58	12	86.00	19
6	93.0	88.20	5	81.0	82.20	5	81.0	84.17	12	84.43	221
7	93.5	97.37	8	81.5	80.20	10	83.0	85.40	25	81.71	243
8	97.0	95.66	9	66.0	66.33	9	73.0	79.72	29	80.88	302
9	92.0	100.09	11	65.0	68.63	11	69.0	84.08	26	80.10	281
10	82.5	84.63	22	64.0	73.55	9	80.0	80.00	33	80.10	299
11	90.0	87.80	5	67.0	71.62	13	71.5	74.65	20	80.63	279
12	79.0	79.84	13	65.0	63.92	13	72.5	74.30	30	75.48	109
13	82.0	82.90	11	69.0	69.42	12	72.0	74.68	25	65.23	30
14	80.0	80.33	15	65.0	68.16	12	77.0	77.59	29	66.11	9
15	85.5	86.10	20	68.0	72.81	11	83.0	78.36	36	58.00	1
16	87.0	88.50	6	57.0	57.14	7	77.0	73.73	15	51.00	1
17	78.0	80.45	11	62.5	65.00	4	77.0	76.33	15		
18	72.5	65.50	6	65.5	64.00	4	72.0	64.42	12		
19	81.0	80.33	3	60.0	60.14	7	70.5	66.20	10		
20	75.0	74.00	3	65.0	64.00	4	67.0	65.11	9		
Total N			150			138			338		1800

*Total number includes 50 cases which could not be classified as to school attendance.

Table 4.56

Statistical Comparisons for the 6- to 10-Year-Old Age Groups

Group	N	Mean I.Q.	S.D.	Statistic
EDUCATION	55	91.89	19.0	t - 5.54**
NO EDUCATION	44	73.33	13.8	
EDUCATION vs.	55	91.89	19.0	t - 4.02**
SOUTHERN KENNEDY SAMPLE	1346	81.44	12.5	

$^{**}p < .01$

Figure 7 (means) and Figure 8 (medians) graphically illustrate the difference in mean I.Q. for the various age groups. The decline was rather apparent up to age 10, at which age the intelligence level appeared to stabilize. The critical time period of greatest change for the NO EDUCATION group seemed to be between 7 and 9 years of age at which time the mean I.Q. abruptly dropped from 80.2 to 68.6. Furthermore, the average I.Q. for the 8- and 9-year age levels was approximately ten points lower than the average I.Q. for the 6- and 7-year age groups illustrating the lowering in I.Q. with increasing age.

The critical period for the EDUCATION group appeared to be at age 9 at which point there was a 16 point differential. Although both PEC groups exhibited a decline in I.Q. with increasing age, the decline occurred much earlier for the NO EDUCATION group (age 7 in contrast to age 10 for the EDUCATION group).

The total average I.Q. between 6 and 10 years of age was 82.3. There was little change in average I.Q. for the total group between ages 11 and

Figure 7

The Relationship Between Mean Stanford-Binet Intelligence Quotients

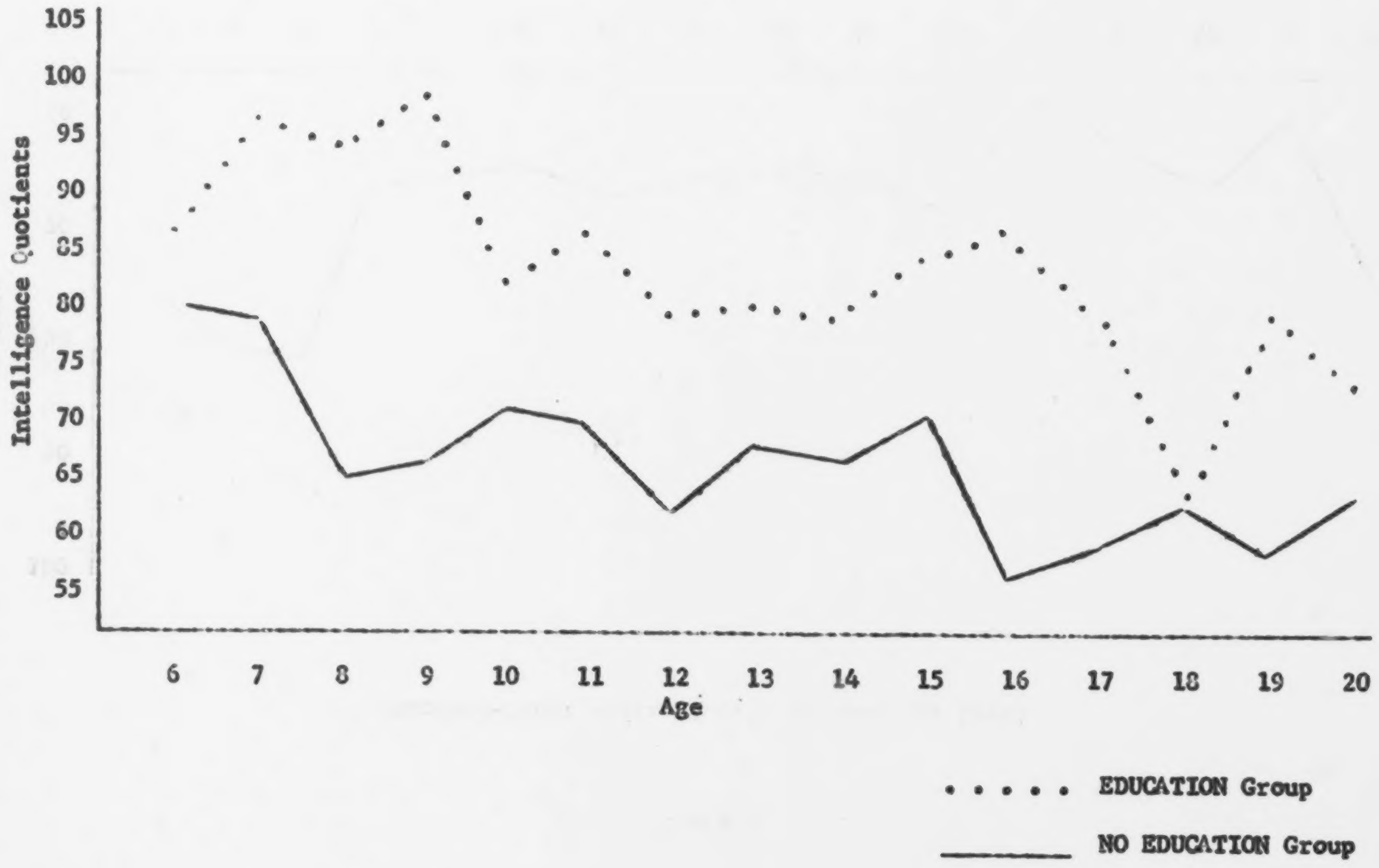
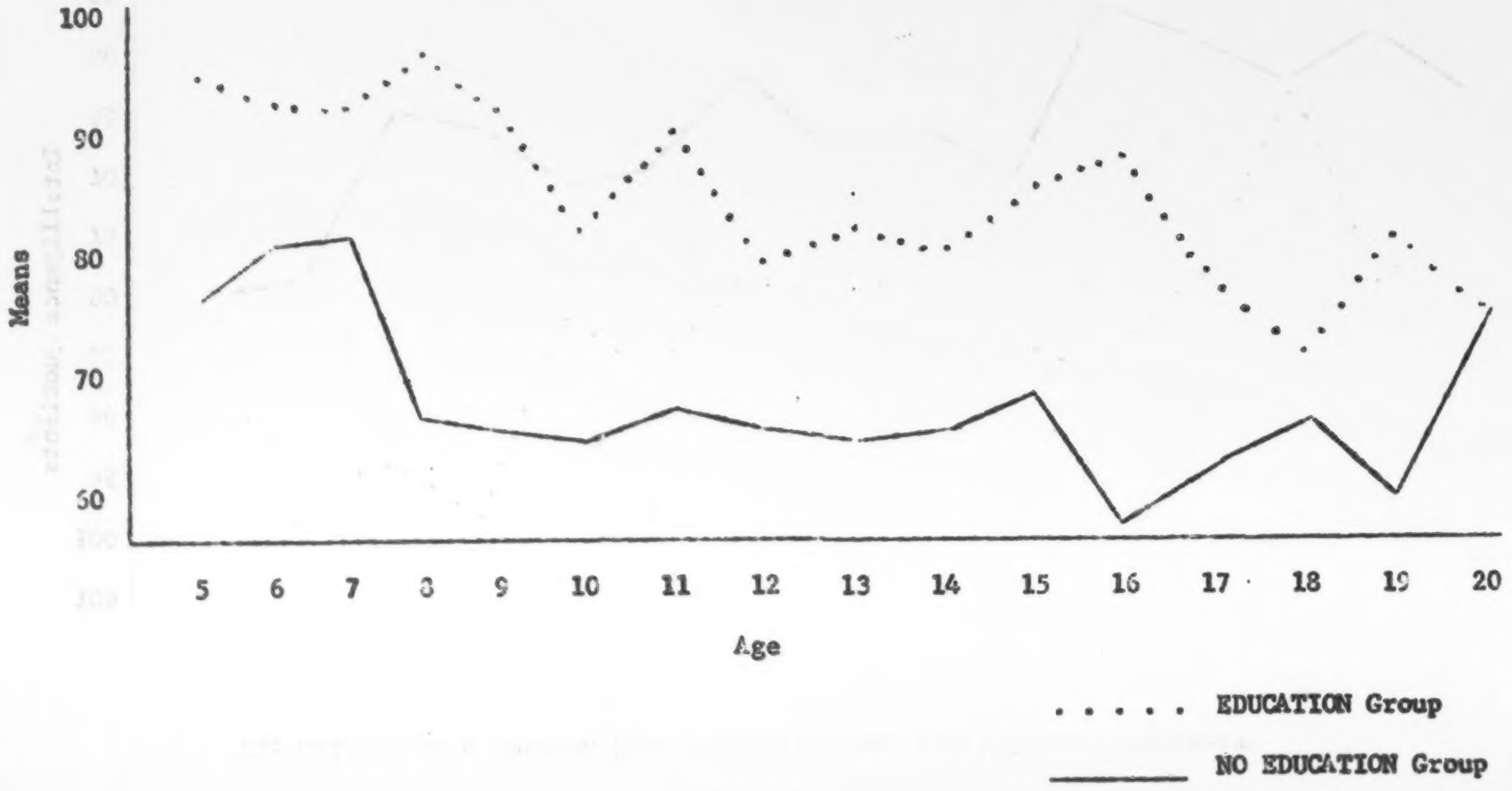


Figure 8

Stanford-Binet Median I.Q.'s at Each Age Level



17 with an average I.Q. of approximately 75.

The Stanford-Binet, L-M (1960), manual has provided a "common frame of reference" for a statistical classification of I.Q.'s. This classification of I.Q. is based upon the 1937 standardization sample of the S-B. The table is given below.

Table 4.57

I.Q. Score Distribution of the 1937 Standardization Group

I.Q. Range	Percent	Classification
140 - 169	1.33	Very Superior
120 - 139	11.3	Superior
110 - 119	18.1	High Average
90 - 109	46.5	Normal or Average
80 - 89	14.5	Low Average
50 - 79	8.0	Borderline Defective
30 - 49	0.23	Mentally Defective

According to the above table, the I.Q. scores of the 6- through 9-year EDUCATION sample fell within the average range of intelligence. Excluding age 11, the remaining part of the EDUCATION sample was within either the low average or borderline defective intelligence.

For the NO EDUCATION group, the 6- and 7-year-olds were at the low end of the low average range of intelligence while the rest of the sample fell within the borderline defective range. In general, it appeared as though formal schooling was a significant factor in measured intelligence for the sample. The net negative effect of non-schooling on the intelligence scores of the NO EDUCATION group was between 15 to 25 I.Q. points. However, the cumulative effect of the absence of education on I.Q. scores was as much as 30 points at some age levels.

The total mean scores for the Kennedy and the total PEC sample between ages 6 and 10 were very similar, averaging in the low 80's. (See Table 4.56). However, the Kennedy means reached a plateau at age 8 and were fairly consistent through age 11. The PEC total group reached a plateau at age 11 and was fairly consistent through age 16. At age 13, a significant drop in mean I.Q. was noted for the Kennedy sample. The latter drop may have been due to a selection factor since the entire sample was composed of youngsters in grades one through six, and it is likely that subjects thirteen through sixteen years of age, who were yet in elementary school could well be intellectually retarded.

It is also interesting to note that with the Kennedy sample (see Table 4.56) a slight decline in I.Q. with increasing age was found. The latter trend seems to be operative in most studies of intelligence with culturally deprived groups.

A surprising finding was the significantly higher mean I.Q.'s of the 6 - 10 age EDUCATION group compared to the Kennedy sample. If schooling is a factor in intellectual growth, then the Southeastern group would be expected (which was not deprived of formal education) to perform at a much higher level than the EDUCATION group. However, such was not the case. The average differences between the Kennedy total sample and the EDUCATION group were rather striking. The mean differences for the six through ten-year-old age group range from 4 to 20 points. One possible explanation for the mean difference between the two groups is pertinent to the kind of education that is typically available to Negro students in the southeastern section of the United States. It is possible that a year and a half of formal education in Washington, D.C.; Boston, Massachusetts; or other Virginia counties is comparable to four years of formal education in Georgia, Alabama, or similar southern states. These comparisons demonstrate that poor school environments may be nearly as damaging as a non-school environment.

Metropolitan Readiness Test

For the Metropolitan Readiness Test (MRT) a two-way analysis of variance for unequal subgroups was conducted using age and normal education classifications. The F ratio for the age and education factor by subtest are presented in Table 4.58.

Table 4.58

Results of the Analysis of Variance of Subtest Scores
of the Metropolitan Readiness Tests

Subtest	F Ratio Age	F Ratio Education	F Ratio for Interaction
Word Meaning	5.7*	28.8**	.06
Sentences	10.2**	28.7**	.07
Information	3.7*	32.9**	.03
Matching	6.7**	58.3**	.07
Number	4.3*	22.7**	.07
Copying	2.5	17.2**	1.73

* $p < .05$ level, ** $p < .01$ level.

Table 4.59

Means and Standard Deviations, METROPOLITAN READINESS TEST
Subtest Scores of Prince Edward County
Children Classified by 1959-1963 Education

Subtest	Age	Education			No Education		
		Mean	S.D.	N	Mean	S.D.	N
Word Meaning	7	15.40	1.51	10	12.18	4.37	40
	8	15.82	2.68	11	12.61	3.94	43
	9	16.86	1.56	21	14.17	3.61	36
	10	17.17	1.15	23	15.96	2.49	42
Sentence Meaning	7	10.00	2.58	10	7.10	3.45	40
	8	10.09	2.59	11	8.30	3.16	43
	9	12.33	1.46	21	9.17	3.34	36
	10	12.57	1.53	23	10.81	2.88	42
Information	7	12.60	1.58	10	9.33	3.80	40
	8	13.00	1.10	11	10.35	3.68	43
	9	13.81	0.51	21	11.40	3.32	36
	10	13.83	0.49	23	11.86	2.65	42
Matching	7	13.90	5.55	10	6.20	6.12	40
	8	16.73	4.20	11	9.70	6.46	43
	9	17.67	1.39	21	10.11	6.68	36
	10	17.70	2.44	23	13.21	6.28	42
Number	7	17.10	6.70	10	10.85	9.63	40
	8	20.27	4.69	11	15.28	12.31	43
	9	22.81	1.81	21	14.25	6.95	36
	10	21.87	5.16	23	18.07	5.06	42
Copying	7	8.20	1.93	10	3.30	3.31	40
	8	8.46	1.97	11	5.88	3.46	43
	9	13.24	18.80	21	5.78	3.61	36
	10	8.78	2.86	23	7.21	2.89	42

The results of the MRT showed an overall significant age and education effect for the 7 to 10-year age group with no interaction between the two variables. Thus, it can be assumed that age and out-of-County education acted independently but significantly on the scores of the MRT for the sample studied.

The means and standard deviations of the subtest scores of the EDUCATION and NO EDUCATION groups are presented in Table 4.59. For each subtest and each age level, the EDUCATION group performed at a higher level than the NO EDUCATION group. However, the largest mean differences occurred on the matching, number, and copying subtests. According to the MRT manual, the matching subtest assesses "visual perception, involving the recognition of similarities, a capacity required to read." The number and copying subtests measure recognition of written numbers, interpreting number symbols, the meaning of fractional parts, visual perception, and motor control. Furthermore, the MRT measures the language factor or the ability to comprehend phrases and sentences. The latter factors, especially the development of language, are more likely to develop in a controlled educational setting where books, auditory stimulation, and verbal interchange occur more frequently and systematically.

The total readiness scores of 7- and 10-year-old children in the EDUCATION and NO EDUCATION groups are presented in Table 4.60.

According to the MRT manual the 7-year-old NO EDUCATION group was not in the most favorable position of reading readiness (see Table 2 of manual). However, the ten-year-old NO EDUCATION group and seven-year-old EDUCATION group had total readiness scores that were within an average range according to MRT norms. The total readiness score of the ten-year-old EDUCATION group fell within the superior readiness range. The latter findings are consistent with the Summer Crash Program data in that both education and age are related to reading readiness. In this case, the seven-year-old EDUCATION group had a

Table 4.60

Comparison of Total Readiness Scores of
Seven- and Ten-Year-Old Children
Classified by Education

	Seven-Year-Olds	Ten-Year-Olds
NO EDUCATION	12.17	15.60
	7.10	10.81
	9.33	11.86
	6.20	13.21
	10.85	18.07
	3.30	7.21
TOTALS	48.95	76.76
EDUCATION	15.40	17.17
	10.00	12.57
	12.60	13.83
	13.90	17.70
	17.10	21.88
	8.20	8.78
TOTALS	77.20	91.93

slightly higher readiness score than the ten-year-old NO EDUCATION group.

California Test of Mental Maturity

An analysis of variance was performed on the verbal, non-verbal, and total I.Q.'s of the CTMM. The F's for the age and education factors of the CTMM are presented in Table 4.61.

The results indicated that the education effect on the CTMM verbal, non-verbal, and total I.Q. was significant. However, the age factor and age by education interaction were non-significant, indicating that the mental maturity of this age group as measured by the CTMM was apparently a function of out-of-County education rather than age.

Table 4.61

Results of the Analysis of Variance
of the California Test of Mental Maturity Scores

CTMM I.Q.'s	F Ratio Age	F Ratio Education	F Ratio Interaction
Verbal	0.1	5.9**	0.4
Non-Verbal	0.4	9.2**	0.4
Total	0.0	8.3**	0.7

**p $<$ .01

Table 4.62 shows the mean CTMM I.Q.'s by chronological age for the EDUCATION and NO EDUCATION groups.

Table 4.62

California Test of Mental Maturity Mean I.Q.
By Chronological Age
For EDUCATION and NO EDUCATION Children

		EDUCATION			NO EDUCATION	
Age	Verbal	Non-Verbal	Total	Verbal	Non-Verbal	Total
12	77.0	81.8	82.6	69.7	70.3	69.2
13	80.8	85.0	83.2	68.0	65.8	67.0
14	76.6	78.0	77.4	73.7	64.6	74.0
15	79.5	79.2	79.7	72.1	75.2	73.5
Total	78.5	81.0	80.7	70.9	69.0	70.9

As indicated in the above table, the mean verbal, non-verbal, and total I.Q. of the EDUCATION group exceeded that of the NO EDUCATION group at each age level. Furthermore, the total I.Q. of the 12-15 age group on the CTMM approximated the S-B findings at the same level.

Table 4.63

S-B and CTMM Total Mean I.Q. For the EDUCATION and NO EDUCATION 12-15 Year-Old Age Group

EDUCATION		NO EDUCATION	
S-B	CTMM	S-B	CTMM
82.65	80.7	68.39	70.9

A ten-point difference was found between the two groups on the CTMM and a fourteen-point difference on the S-B. It is also interesting to note that, for both tests, there was little variation in measured I.Q. for the two groups in the 12-15 age category indicating that perhaps education had its greatest impact on measured intelligence at the earlier age levels. In regard to the latter point, the greatest decline in I.Q. for both groups occurred at the earlier age levels (6-10 on the S-B).

Summary and Implications

In general, formal schooling was shown to be a significant factor in the measured intelligence of the PEC sample. The cumulative effect of variation in education on I.Q. scores was as much as 30 Stanford-Binet I.Q. points at some age levels. Children over age 7 in the NO EDUCATION group fell into the "mentally defective" I.Q. range. The I.Q. of those children managing out-of-county instruction then, showed "significant advantage". In fact, the average I.Q. of the 6- to 10-year-olds with out-of-County education significantly exceeded that for a normal southern Negro sample (Kennedy, 1961) in the same age range. One possibility was that the areas where the Prince Edward County children went for instruction offered better educational facilities than was typical in the South.

The Metropolitan Readiness Tests confirmed the significant effect of out-of-county education on measured test scores. With the MRT age also appeared as a significant (although independent of education) factor. For every subtest and at every age level, the EDUCATION group outperformed the NO EDUCATION group.

The California Test of Mental Maturity results paralleled closely those of the Stanford-Binet. Again, irrespective of age, the EDUCATION group significantly excelled the NO EDUCATION group on verbal, non-verbal, and total I.Q.'s.

There appeared to be an inverse relationship between age and I.Q. score. This relationship was most clearly demonstrated at earlier age levels and with age levels where greatest variation in amount of education occurred. This is a finding reported in much related research. Kennedy, Bright and Young, Arlitt, Higgins and Sivers, and Tomlinson all comment on it. While these references are discussed at length in Chapter Two, a question raised by Tomlinson seems relevant here. Does the decrease in I.Q. signify a progressive decrement in intelligence or do the intelligence tests include items at the upper levels which focus on experiences unavailable to a culturally deprived child? Actually these alternatives are far from mutually exclusive. Lack of educational experience at a critical age may affect both performance on items tapping these experiences and intelligence itself. Bloom[30], for example, hypothesizes that 80 percent of mature intelligence is determined by the age of eight. Thus, it is likely that the operational definition of intelligence (the test score) is affected concomitantly with the underlying trait.

---

[30] Benjamin Bloom, Stability and Change in Human Characteristics, New York, London, and Sydney, John Wiley and Sons Inc., 1964.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

This study was an attempt to catalog the results of a significant and unique situation in the history of American education: the closing of the public schools in Prince Edward County, Virginia.

Educational and Psychological Testing

The first major aspect investigated was the effect of non-schooling on academic achievement, intelligence, and self-perceptions. It was found that educational deprivation had a decided effect upon the development of traditional academic skills. Reading skills were moderately affected at all age levels, spelling and language usage were primarily affected between ages 6 to 11 while arithmetic skills were affected by the educational deprivation primarily at the upper age levels of 11 to 17.

At all ages, children with moderate education outperformed children with no education during this period. In certain skills, such as spelling and language usage, intermittent instruction seemed to maintain high skill level. Reading skills of older children were influenced by education.

A second issue concerned the rate of the educational development of these children. The evidence in this regard was very scanty but even children with some 1959-1963 education did not approach the development of the norm group, and the slopes of their achievement curves did not show typical achievement patterns. Children without education during this period had patterns which showed even a slower development. At age 11, children (with and without education) resembled children of the norm group two to four years younger. At age 17 the discrepancy was even greater.

A third analysis involved Negro children in a neighboring county. Both the EDUCATION and NO EDUCATION groups had lower achievement levels in all areas than children from the neighboring county even though this county was somewhat more rural than Prince Edward County.

Another concern was with the effects of the short-term remedial programs on achievement. When the control for out-of-County (1959-1963) education was made, both the summer and winter programs were shown to have mild effects on the participants. Readiness scores were somewhat higher for those who attended but the analysis indicated that these increases were not extreme and neither attenders nor non-attenders had readiness scores approaching the national norms. These programs may have contributed somewhat to children who had no other avenue for training but their effects were not substantial enough to obviate the negative effects of non-schooling.

An attempt to discover which skills were particularly susceptible to the influence of schooling was limited by the powerful influence of non-schooling on all areas. However, some skills such as arithmetic computation and language usage were more seriously affected, with reading and spelling influenced to a lesser degree.

Concept attainment, also of interest, was touched upon. Analysis of children's time-telling skills indicated that school serves as an important factor in the children's ability to tell time. Even some children from 12-17 years of age did not have completely developed time-telling skills.

The relationship between education and intelligence was a major facet of the study. In general, the effects of educational deprivation were evident at all age levels. The scores of children who had never attended a school seemed to be particularly influenced. At all age levels children with some (1959-1963) education had higher scores than those without education during this period. At ages 6-18, the mean difference ranged from 1.5 to 31.5 I.Q. points. The average of these differences was 16.5. The average mean I.Q. scores of the EDUCATION and NO EDUCATION groups were 85.9 and 69.4, respectively.

The total mean I.Q. scores were similar to those of a sample of Negro children previously tested in the southeastern United States, but were lower than scores previously found in Virginia for similar populations. Children aged 6-10 who had attended school out of the County attained scores which would place them within the normal range of intelligence, but average scores of children over ten years of age fell below this range and were indicative of subnormal mental development.

Group intelligence test scores were similarly affected. Verbal and non-verbal I.Q. scores were not significantly different; both were depressed below the norm for the age range tested.

The readiness level of children who had experienced some out-of-County schooling was more advanced than those who had not. However, readiness scores also improved with age, regardless of education, suggesting maturation as a relevant factor.

Another analysis was concerned with school experience and self-concepts of ability. A tentative conclusion in this area was that the average self-concept of ability of Negro students was the same irrespective of differing social and environmental conditions. However, the nature of the data did not warrant further conclusions.

The attempt to compare achievement scores prior to the school closing with achievement scores in 1963 was not feasible since school officials would not (at this time) release the information. A subsequent study may contain these comparisons.

Socialization Processes and Social Action

The other major aspects of this study were the analyses of the alternatives that may have occurred in the lives, goals, and values of the population involved and the assessment of the extent of cohesion with, and communication between, the Negro and Caucasian communities. Because the school typically functions as a major agent in the socialization of school-age youngsters, and serves as a focal point in the lives of those families who have school-age children, this study directed itself to major questions concerning the educational and socializing role of the community and the family when the situation rendered it necessary for these agents to assume the role normally sustained by the public school.

In general, the majority of the parents attempted to initiate some educational or social activities of a compensatory nature when the schools were no longer operating to fulfill these roles. Informal instruction was most often begun by, and accomplished in conjunction with, community agencies, although the attempt to teach something in the home was widespread. Parental attempts to teach most frequently included the basic elementary subjects such as reading and writing, with more advanced courses taught only rarely. Although parental participation in educational and socializing activities was generally high, it was low in respect to the teaching at home of any courses beyond the elementary level. The parents felt themselves too inadequate to assume the more formal aspects of the school's role. Many of the Negro children in the community had to rely completely on the parental and community compensatory activities for any education.

The identification process of Negro children after the schools were closed was also considered. The choice of parents and other family figures as admired models predominated throughout all age levels, for both sexes, and for both the EDUCATION and NO EDUCATION groups. Preferences for peers and teachers did not attain an appreciable high frequency; "glamor figures" represented the largest number of non-parental choices; and choices for professional figures were negligible. The predominance of choices for parental and other family figures at all age levels and especially among the older subjects may have been due to a lack of normal school environment and the consequent increase or continuance of contacts in the home atmosphere. On the other hand, there exists the possibility that parents and other relatives continue to serve as meaningful models under any circumstances, and do so well beyond the age limit commonly accepted by many authorities in the field. Protracted investigation is needed to determine whether these children, back in school, will designate new, non-family models, whether they choose more than one model, and whether their models for present behavior continue to be influential in long-term educational and occupational activity.

Another analysis was concerned with the effects of non-schooling on levels of educational and occupational aspiration, and the perceived importance of the role of the school as a route to social mobility. The finding that the EDUCATION group expressed higher educational and occupational aspirations than the NO EDUCATION group led to the conclusion that formal schooling plays a crucial role in orienting children toward higher educational and occupational goals. A related conclusion, was that the children who did not attend school outside of the County but engaged in gainful employment during the school closure perceived school as a less important route to social mobility than those who attended school outside of the County and did not work for pay during the school closure. The children also appeared to be realistic in expressing their occupational goals in terms of anticipated educational attainment. The final conclusion reached in the analysis of the effects of non-schooling on levels of educational and occupational aspiration was that urban Negro children of Prince Edward County stated higher educational and occupational aspirations than those who resided in the outlying agricultural districts.

Research was also conducted to ascertain the status of communication between Negroes and Caucasians in the County during and after the school closing. Communication, although not completely destroyed, decreased sharply, and both racial groups tended to become psychologically deaf and blind to the actual feelings, opinions, needs, and desires of the other group. An overt attempt on the part of the majority group to maintain the status quo (traditional position) tended to negate communication when it was sought by the minority group. The lack of real and effective communication implies that a constructive and positive interaction between the two groups did not obtain. Consequently, any action directed toward an agreeable solution of the school issue was severely impeded. Lack of communication also tended to promote negative attitudes on the part of each group toward the other.

An analysis was performed to identify the distinctive characteristics of parents of Negro children who attended the six-week summer sessions and/or school outside of Prince Edward County during the school closure. The analysis revealed no significant differences between parents whose children did and did not attend the six-week summer sessions. The analysis did, however, show significant parental differences between children who did and did not attend school outside of the County. The parents of the EDUCATION group tended more often to subscribe to magazines and newspapers; the mean socio-economic rating of the fathers' occupations of the NO EDUCATION group were somewhat lower; the parental educational and occupational aspirations for the EDUCATION group were slightly higher. There were no significant differences between the two groups in levels of education achieved by fathers and in parental membership in clubs or lodges.

The parents of the EDUCATION group, because they subscribed to and read more newspapers and magazines, were probably better informed about the educational requirements for social mobility and the likelihood that their children's life chances would be better if they continued their educations.

While the fathers of the EDUCATION group were not highly educated, they held occupations of higher socio-economic status than the fathers of the NO EDUCATION group and perhaps better perceived the need for higher education for their children. Consequently, they were more willing to send their children away from home for schooling.

Negro mothers in Prince Edward County were the dominant influence on the educational motivation of their children.

In an effort to understand something of the magnitude of the effects of the school closing on the lives of those who had resided in the community, attention was turned to the type of adult who left at that time. There had been a trend of out-migration among the Negro population of the County during the preceeding ten years. However, the majority of the Negro adults who left the area when the schools were closed were professional people, primarily teachers whose occupational opportunities were no longer in the County. The school closing lent impetus to what had already been a tendency toward a decrease in the adult Negro population of the County.

Another analysis concerned juvenile delinquency. An examination of the Juvenile Court records of the city of Farmville revealed that instances of delinquent behavior had almost doubled during the period of 1960-1962, and contrasted to the preceeding period of 1957-1959 when the schools were open. In general, however, major crimes such as murder or rape were absent during the total period examined, 1957-1963. Instances of delinquency when viewed on the basis of the total Negro school-age population were relatively few.

Youthful crime and delinquency was not as widespread as might be expected in a situation where a great many young people had an overabundance of free time and little opportunity to put this free time to constructive use in part-time jobs.

Another field explored was that of the personal experiences, aspirations, and views of the young people themselves. A selected group of students from the EDUCATION group was interviewed in depth, and the following results were forthcoming.

Children who attended school outside of the County for all or part of the four years had higher educational and occupational aspirations, seemed to have been influenced positively in their values, interests, and choices of vocation by the new and broader environment and by those people with whom they resided while away from home. Their school, family, and personal experiences in the new environment were generally constructive, interesting, and not of such a nature as to promote or re-enforce negative self-concepts.

When the act of leaving the community was examined, few differences were found between children who were away and those who were at home. Parental education level achieved in 1959 was not a significant factor. Parental attitudes about education, and aspirations regarding their children's education were related factors. Females tended to continue their education more often than males.

The study raised several issues deserving further consideration. Additional information on the academic achievement of the sample's students would clarify the relationship between the amount of time spent in school and the attained achievement score. The discrepancy observed between achievement scores of the children in this study and those of the norm groups may be more highly related to the number of days spent in school than to other factors such as the intellectual level of students and the type of school program. More data is needed to determine this.

The disruption of the normal pattern of schooling was reflected in both achievement and intelligence scores. The permanence of these effects should be investigated. Short-term remedial programs had minor effects; intensive long-range programs may or may not significantly elevate achievement and intelligence scores. Especially interesting in this regard would be an analysis of changes in I.Q. scores over long periods. If environments exert their greatest effects during the early years, then many of the observed deficits will be impossible to recover. On the other hand, if the critical period for school-related learning is well within the age of normal school attendance, then many of the effects of school deprivation might be ameliorated by intensive educational programs. An analysis of test scores following the first year of formal school in Prince Edward County may shed light on these issues.

Early school deprivation may, however, have irreversible effects. If this is the case, then the rate of subsequent development should be substantially different for children who have experienced severe early deprivation. Terminal skill development of these children would never attain a normal level.

Other issues were raised when the I.Q. scores of the sample were analyzed. The extremely low levels attained by both subsamples (EDUCATION and NO EDUCATION) indicated that estimates of other investigators of the effects of environment on I.Q. scores may be conservative. The net effort of deprived environment on I.Q. scores may be large enough to cause differences of thirty I.Q. points for children of varying environments. Traditional I.Q. tests may become progressively more inappropriate as formal schooling is diminished.

Another aspect of the critical period issue, the relationship of readiness to progress in reading, should also be examined. The 8- to 10-year-old children had extremely low readiness scores. The eventual attainment of reading skills and patterns of reading development of these children should be studied over more extended periods.

An intensive diagnosis of long-term achievement could indicate where particular learning difficulties occur. Item analysis of achievement tests and test-retest comparisons would indicate whether test factors and personal styles of response contribute unusual variance to the achievement score.

The results of deprivation should also be studied on other variables such as creativity. The detrimental aspects of school deprivation observed within this study may not be so obvious on abilities which are linked less to formal instruction.

Achievement, intelligence, creativity, self-concept, and school grades should also be interrelated. Factorial studies would contriuute to a better understanding of the interrelationship of these variables.

Further study of the relationships existing between perceptions of academic ability and school achievement, and the relationships between changes in self-concept and achievement behavior would extend the understanding of the functions of self-concept in human behavior.

The role of the school in the development of educational plans should be investigated further. When these children encounter educational situations more typical of their community, the changes in aspiration level should indicate the role of southern education in the development of aspiration in Negro children.

The effect of education on the realism of vocational choice should also be investigated further. If education contributes to the rationality of the choice, then an increasingly greater correspondence between educational aspiration and occupational aspiration should result.

The findings of the study must be cautiously interpreted. While every effort was made to adequately sample the research population, sampling errors were undoubtedly present in some degree, and some of the differences demonstrated throughout the study could be explained by reasons other than the ones proposed. However, much of the low attainment on educational and aptitude tests established by the study cannot be ignored. Explanations of these scores as the result of sampling or selection errors are inadequate to account for the observed magnitude of the differences.

The major findings of the study were:

1. Children's academic achievement was severely retarded by the lack of local formal education.
2. The intelligence scores of children were depressed from 15 to 30 points by the disruption in schooling.
3. Communication between the Negroes and whites was minimal.
4. Short-term remedial programs were partially effective but were not adequate substitutes for continued education.
5. Interim schooling was related to children's occupational and educational aspiration level.

APPENDIX A

PHASE I SURVEY QUESTIONNAIRE

MICHIGAN STATE UNIVERSITY

Prince Edward County, Virginia - Phase I Survey

Location of Household. (To be filled in before interview)

District ________________ Name ____________________

Address ________________ Road ____________________

I am ____________________ helping Michigan State University do a study of the way young people have used their time and what they have learned since the schools were closed in 1959. First, we would like to know who the young people are and what they have been doing with their time. Later in the summer we will want to get some more information from the young people themselves. You may have heard about this study since several local people have helped in the planning of it. (If asked, the interviewer should mention the Rev. L. Francis Griffin or Dean Gordon Moss of Longwood College or Superintendent McIlwaine of the Prince Edward County Schools.

First of all we would like to know:

1. Are there any young people under 22 years old living here?
   Circle X or Y
   No ________ X
   Yes ________ Y
   If yes, how many?
   (Circle)
   1
   2
   3
   4
   5

2. Are there any young people under 22 who normally live here who are now away from home?
   Circle X or Y
   No ________ X
   Yes ________ Y
   1
   2
   3
   4
   5

IF THE ANSWER TO BOTH QUESTIONS 1 AND 2 ARE NO, THANK THE RESPONDENT AND TERMINATE THE INTERVIEW.

IF THE ANSWER TO EITHER 1 OR 2 IS YES, PROCEED TO QUESTION 3.

3. What are the names of these young people?
   (Record full name directly below.)

Young People at Home	Young People Away
1. ________________	7. ________________
2. ________________	8. ________________
3. ________________	9. ________________
4. ________________	10. ________________
5. ________________	
6. ________________	

	Young People at Home						Young People Away			
Put the first name of each person on the previous page (1-6 & 7-10) in the same number columns going across.	1	2	3	4	5	6	7	8	9	10
NAME										
4. How old is he (she)? (Ask for each)										
5. Was he (she) in school when the schools closed? (Circle)	Yes 1 No 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
6. What grade was he (she) in when the school closed?										

NOW WE WOULD LIKE TO KNOW ABOUT SOME OF THE THINGS THESE YOUNG PEOPLE HAVE BEEN DOING SINCE THE SCHOOLS CLOSED.

7. What is he (she) doing now?										
Working for pay	1	1	1	1	1	1	1	1	1	1
Working around home not for pay	2	2	2	2	2	2	2	2	2	2
In school elsewhere	3	3	3	3	3	3	3	3	3	3
Just around home	4	4	4	4	4	4	4	4	4	4
Other	5	5	5	5	5	5	5	5	5	5
8. Has he (she) worked for pay at any time since the schools closed? (Circle)	Yes 1 No 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2

	Young People at Home						Young People Away			
	1	2	3	4	5	6	7	8	9	10
First Name										
9. If yes to the above, type of work has he (she) done?	**Yes 1 No 2**	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
10. If yes to number 8 has he (she) had steady work or has it only been part-time? (Circle)	**Steady 1 Part-time 2**	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
11. Can he (she) read? (Circle)	**Yes 1 No 2 Don't know 3**	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
If yes, what kinds of things does he read? (Probe for each) Comics Newspapers Magazines Books Mail Order Catalogue	**1 2 3 4 5**	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
12. Has he (she) attended school out of the county anytime since school closed? (Circle)	**Yes 1 No 2**	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
If yes, where has he (she) attended school?										

		Young People at Home						Young People Away			
		1	2	3	4	5	6	7	8	9	10
First Name											
13. If yes to the above, how long did he (she) attend school there? (Circle)	½ yr. 1 yr. 1½ yr. 2 yr. 2½ yr. 3 yr. 3½ yr. 4 yr.	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8
14. Did he (she) attend any of the summer crash programs? (Circle)	Yes No	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
If yes, how many summers did he (she) attend? (Circle)		1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
15. Did he (she) attend any of the winter training centers? (Circle)	Yes No	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
If yes, how many did he (she) attend?		1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3

NOW WE WOULD LIKE TO KNOW ABOUT SOME OTHER THINGS.

	Young People at Home						Young People Away			
	1	2	3	4	5	6	7	8	9	10
First Name										
16. Do you have a television set here? (Circle)	Yes 1 No 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
17. Do you have a radio? (Circle)	Yes 1 No 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
18. If yes to number 16, does he (she) watch TV at home? (Circle)	Yes 1 No 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
19. If no to number 16, does he (she) watch TV at neighbors? (Circle)	Yes 1 No 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
20. If yes to question 17, does he (she) listen to the radio very often?	Yes 1 No 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
21. If no to question 17, does he (she) listen at neighbors?	Yes 1 No 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2

	Young People at Home						Young People Away			
	1	2	3	4	5	6	7	8	9	10
First Name										

NOW WE WOULD LIKE TO KNOW SOMETHING ABOUT WHAT THESE YOUNG PEOPLE ARE LIKELY TO DO IN THE FUTURE.

22. Do you think he (she) would attend regular school if the local public schools were reopened?										
Yes (sure)	1	1	1	1	1	1	1	1	1	1
Probably yes	2	2	2	2	2	2	2	2	2	2
Probably no	3	3	3	3	3	3	3	3	3	3
No (sure)	4	4	4	4	4	4	4	4	4	4
Don't know	5	5	5	5	5	5	5	5	5	5
23. If regular school bus transportation were not available, would these young people have a way to get to school? (Circle)										
	Yes 1	1	1	1	1	1	1	1	1	1
	No 2	2	2	2	2	2	2	2	2	2
24. It is likely that several places will be set up around here later this summer where anyone interested could learn to read and write better. Do you think he (she) would attend such a place to learn more?										
	Yes (sure) 1	1	1	1	1	1	1	1	1	1
	Probably Yes 2	2	2	2	2	2	2	2	2	2
	Probably No 3	3	3	3	3	3	3	3	3	3
	No (sure) 4	4	4	4	4	4	4	4	4	4
	Don't know 5	5	5	5	5	5	5	5	5	5

NOW WE WOULD LIKE TO KNOW A LITTLE ABOUT THE OLDER PEOPLE WHO LIVE HERE.

(If you don't already know ask question 25)

25. Your name is? ________________________

26. How are you related to the young people we have been talking about? (Circle more than one if appropriate)

Mother	**1**
Father	**2**
Grandmother	**3**
Grandfather	**4**
Aunt	**5**
Uncle	**6**
Sister	**7**
Brother	**8**
No relation	**9**

27. Who else lives here with you? (Record names)

1. ____________________
2. ____________________
3. ____________________
4. ____________________

	1	2	3	4
28. What does he (she) do for a living?				
29. About how far did he (she go in school?				
Less than a year	1	1	1	1
4-6 years	2	2	2	2
7-9 years	3	3	3	3
10-12 years	4	4	4	4
More than 12 years	5	5	5	5
30. How is he (she) related to you?				
Husband	1	1	1	1
Wife	2	2	2	2
Mother	3	3	3	3
Father	4	4	4	4
Brother	5	5	5	5
Sister	6	6	6	6
Uncle	7	7	7	7
Aunt	8	8	8	8
None	9	9	9	9
31. Do you think any of the adults would go to a place like we mentioned to learn to read and write better? (If yes check for each)				
Yes	1	1	1	1
No	2	2	2	2
Don't know	3	3	3	3

32. Now I would like you to think back to the time when the schools closed. In general, how did you people feel about the schools closing? (Write as accurately as possible the respondent's answer.)

- -

- -

- -

- -

- -

- -

33. One more question. In general, how important do you people feel it is that the young people get regular schooling?

Absolutely essential	1
Very important	2
Rather important	3
Not very important	4
Doesn't matter to ud	5
Rather not have them in school	6

APPENDIX B

CHILDREN'S QUESTIONNAIRE

MICHIGAN STATE UNIVERSITY--BUREAU OF EDUCATIONAL RESEARCH

A Study of Prince Edward County, Virginia

Phase II. INTERVIEWS OF SELECTED CHILDREN AND THEIR PARENTS

Interview Schedule A: Children

Name of Interviewer:_____________

Date of Interview:_______________

Part I. BASIC INFORMATION

1. What is your name?_______________________________

2. What is your address, including your district?__________

____

3. Where were you born?_____________________________

4. What is the date of your birth?_____________________

5. Age (at time of interview): Years:________ Months:_________

6. Sex: Male_______ Female_______

7. What are the names of your parents (or guardians)?___________

____

8. Where do they live?______________________________

Part II. SCHOOLING

1. Have you ever attended regular school? Yes ____ No ____

(If the answer to question No. 1 is No, ask question No. 2 and then skip to No. 12; if the answer to question No. 1 is Yes, skip question No. 2 and ask No. 3 through No. 13.)

2. What do you think school is like?_______________________

____

3. How many years of regular school have you completed?__________

4. Were you attending one of the public schools when they were closed in 1959? Yes _____ No _____

(If Yes): a. Which one were you attending?____________
b. What grade were you in then?____________

5. Have you attended school outside of the County? Yes ____ No ____

(If Yes): a. Where have you attended?____________
b. For how many years have you attended?________

6. What subjects have you studied at school?____________________

____

7. What games and sports have you played at school?____________

____

8. Have you belonged to any clubs or teams at school? Yes ___ No ___

(If Yes): Tell me the name of each and what it did:______

____

9. Have you studied music at school? Yes _____ No _____

(If Yes): What kind of music have you studied?__________

10. Have you taken home economics or shop at school? Yes ___ No ___

(If Yes): What did you learn to do?____________________

____

11. Are there other school activities in which you have taken part?

Yes _____ No_____

(If Yes): Name them (possibilities are: skits, rhythm band, May Day):

____

12. Have you attended any of the summer crash programs? Yes___ No___

(If Yes): a. How many summers have you attended?_________
b. What are some of the things you did?________

____

13. Have you attended any of the training centers? Yes___ No___

(If Yes): a. How many years have you attended?__________
b. What are some of the things you did?________

Part III. WORK EXPERIENCE

1. Have you helped with any of the following jobs at home? (Circle each one helped with and ask the respondent how he learned to do it.)

   a. Housework______________________________

   b. Gardening, Farming__________________________

   c. Buying at the store__________________________

   d. Baby-sitting_____________________________

   e. Cooking________________________________

   f. Sewing_________________________________

   g. Other (specify)____________________________

2. Do you now have a regular job outside of the home? Yes___No____

   (If Yes): a. What is the job?________________________
   b. How did you learn it?____________________
   c. How long have you been doing it?____________

3. Have you done any of the following jobs outside of the home? (Circle each one done and ask respondent how he learned to do it):

   a. Yard work______________________________

   b. Farm work______________________________

   c. Baby-sitting_____________________________

   d. Caddying_______________________________

   e. Housework______________________________

   f. Other (specify)_______ _____________________

Part IV. SUNDAY SCHOOL AND CHURCH

1. Have you ever attended Sunday School? Yes ____ No ____

   (If Yes): a. Where have you attended?__________________

b. For how many years have you attended?_______
c. How many times a month do you go now?_______

2. Have you ever attended church services? Yes____ No____

(If Yes): a. Where have you attended?________________
b. For how many years have you attended?_______
c. How many times a month do you go now?_______

3. Have you ever belonged to a youth church group? Yes___ No_____

(If Yes): a. To what group have you belonged?___________
b. For how many years have you belonged?______
c. What are some of the things the group has done?

____

4. Have you attended (or helped in) a Vacation Bible School?
Yes____ No____

(If Yes): a. How many summers have you attended (or helped)?

____

b. What are some of the things you did in Bible School?_______________________

Part V. ORGANIZED ACTIVITIES OUTSIDE OF SCHOOL AND CHURCH

1. Have you ever been to a camp? Yes___ No___

(If Yes): a. Where have you gone to camp?_______________
b. How many times have you gone?_______________
c. What are some of the things you did?________

2. Have you ever belonged to any non-school club or team? Yes__No__
(Possibilities are: 4-H; Future Farmers of America; athletic teams)

(If Yes): What is the name of the club or team and how long have you been a member?_____________________

3. Have you learned to do any of the following? (Circle each one learned and ask the respondent how he learned it):

a. Ride a bicycle_______________________
b. Play basketball_______________________
c. Play football_______________________
d. Play softball (or baseball)_______________________

e. Play kickball____

f. Play volleyball____

g. Swim____

h. Fish____

i. Play a musical instrument____

j. Dance____

4. Can you think of any other game or sport you have learned? (Specify each and ask respondent how he learned it):

____

Part VI. TELEVISION, RADIO, MOVIES

1. Do you ever watch TV? Yes ____ No ____

(If Yes): a. Where do you watch it, as a rule?____________
b. What programs do you watch? (If respondent is under 12, ask about Captain Kangaroo, Walt Disney, Lassie, Discovery):__________________

____

c. About how many hours a day do you watch?______

2. Do you ever listen to the radio? Yes____ No____

(If Yes): a. Where do you listen, as a rule?____________
b. What kind of programs do you listen to?________

____

c. About how many hours a day do you listen?_____

3. Do you ever go to the movies? Yes____ No____

(If Yes): a. Where do you go?____________________
b. What are the names of some of the movies you have seen?____________________
c. About how many times a year do you go?________

Part VII. READING, WRITING

1. Can you read? Yes ____ No ____

(If Yes): a. How did you learn?____________________

b. Do you read any of the following: (Circle those read and ask which newspapers, magazines, books, etc., are read):

i. Newspapers______________________________

ii. Comic books____________________________

iii. Magazines______________________________

iv. Books__________________________________

v. Sunday School Material____________________

vi. Other (specify)__________________________

2. Can you write? Yes ____ No ____

(If Yes): How did you learn?____________________________

3. (Ask, if the respondent is less than 12) Do others read to you? Yes ____ No ____

(If Yes): a. Who reads to you?________________________
b. What are some of the things they read?______

4. (Ask, if the respondent can read): Do you ever read to younger children? Yes ____ No ____

(If Yes): a. To whom do you read?______________________
b. What are some of the things you read?_______

Part VIII. TRAVEL

1. What is the farthest away from home you have ever been?__________

2. Have you ever been to any of the following cities? (Circle those visited, and ask the respondent what he did there):

a. Richmond____

b. Lynchburg____

c. Williamsburg____

d. Washington____

e. Other cities (Specify)________________________________

3. Have you ever ridden in any of the following? (Circle those ridden in):

   a. An automobile

   b. A train

   c. A bus

   d. An airplane

   e. A taxi

Part IX. ASPIRATION

1. How many years of school would you like to complete?____________

2. Do you think you will actually be able to complete this many years? Yes ____ No ____ Explain your answer.________

   ____

3. What kind of job would you most like to have?_______________

4. Do you think you will actually be able to get this kind of job? Yes _____ No _____

   Explain your answer:_________________________________

5. If you could live anywhere you wanted to, where would you live?

   ____

   Why would you like to live there?______________________

6. Name three persons you admire very much and tell why you admire them (if the person named requires further identification, supply this):

   a.____

   b.____

   c.____

Part X. CONCLUSION

1. Do you think everyone in Prince Edward County is treated more or less alike? Yes _____ No _____

   Why do you think this?________________________________

2. Do you think that everyone in Prince Edward County has about the same chance to get ahead as everyone else? Yes ____ No ____

   Why do you think this?____

3. Do you think life in the County could be made better in any way? Yes ____ No ____

   Why do you think this?____

APPENDIX C

PARENTS' QUESTIONNAIRE

MICHIGAN STATE UNIVERSITY--BUREAU OF EDUCATIONAL RESEARCH

A Study of Prince Edward County, Virginia

Phase II. INTERVIEWS OF SELECTED CHILDREN AND THEIR PARENTS

Interview Schedule B: Parents

Name of Interviewer:______________

Date of Interview:______________

Name of child whose parents are to be interviewed:______________

Part I. BASIC INFORMATION

1. What is your name?______________
2. What is the name of your husband (or wife)?______________
3. What is your address?______________
4. Where were you born?______________
5. Where was your husband (or wife) born?______________
6. How many years have you lived in the County?______________
7. How many years has your husband (or wife) lived in the County?
____
8. Have you lived outside the County? Yes____; No__________
(If Yes): Where have you lived?______________
9. Has your husband (or wife) lived outside the County? Yes___ No__
(If Yes): Where has he (or she) lived?______________
10. How many years of school did you complete?______________
11. How many years of school did your husband (or wife) complete?____
12. What is your present occupation?______________
13. What is the occupation of your husband (or wife)?______________

Part II. FAMILY AND RELATIVES

1. How many children do you have?______________

2. What are their names; their ages; the number of years of schooling they have completed; and their occupations?

Name	Age	Years of Schooling	Occupation

3. Do you and your husband (or wife) have close relatives living in the County? Yes ______ No_______

(If Yes): About how many do you have?__________

Part III. ORGANIZATION MEMBERSHIP

1. Do you or your husband (or wife) belong to a church? Yes___No___

(If Yes): a. Which one?______________________

b. About how many times a month do you or your husband (or wife) attend church?____________

c. Has either of you taught Sunday School? Yes___
Yes _____ No______

d. Has either of you helped in Vacation Bible School? Yes _____ No _____

e. Are you or your husband (or wife) active with any groups within the church? Yes ___ No___

(If Yes): With which one or ones are you active? (e.g., Missionary Circles, Bible Class, Choir, Ushers)

____

____

2. Do you or your wife (or husband) belong to lodges or clubs of any kind? Yes _____ No _____

(If Yes): To what lodges or clubs?______________________

____

3. Are you registered to vote? Yes____ No ____

(If Yes): a. Did you vote in the last election? Yes ___ No__

b. Do you plan to vote in the next election? Yes__No__

4. Is your husband (or wife) registered to vote? Yes ____ No ____

(If Yes): a. Did he (or she) vote in the last election? Yes ____ No ____

b. Does he (or she) plan to vote in the next election? Yes ____ No ____

5. In general, how important do you feel it is for people to register and vote? ____

____

Part IV. MASS MEDIA

1. Do you or your husband (or wife) subscribe to a newspaper? Yes ____ No ____

(If Yes): Which one or ones? ____________________

2. Have you or your husband (or wife) read any books lately? Yes ____ No ____

(If Yes): Do you remember the titles? ____________________

____

3. Do you or your husband (or wife) subscribe to a magazine? Yes ____ No ____

(If Yes): Which one or ones? ____________________

4. Do you and your husband (or wife) watch TV? Yes____ No____

(If Yes): a. What programs do you watch?____________________

____

b. About how many hours a day do you watch?____

5. Does your child (mention his name) watch TV? Yes ____ No ____

(If Yes): a. What programs does he (or she) watch? ________

____

b. About how many hours a day does he (or she) watch? ____________________

c. In your opinion, what kinds of programs are best for children to watch?________________________

____

6. Do you and your husband (or wife) listen to the radio? Yes___No___

(If Yes): a. What kinds of programs do you listen to?____

____

b. About how many hours a day do you listen?__

____

7. Do you and your husband (or wife) go to the movies? Yes___ No___

(If Yes): How often do you go?____________________________

Part V. ACTIVITIES WITH CHILDREN

1. Have you or your husband (or wife) done any of the following with (give name of child)?

a. Read to him (or her)? Yes _____ No _____

(If Yes): What are some of the things you have read?_______

____

b. Attended church together? Yes _____ No _____

c. Watched TV together? Yes _____ No _____

d. Hunted or fished together? Yes _____ No ______

e. Other things? (Specify) ____________________________________

2. Are there other things you have done as a family? Yes ____ No____

(If Yes): Name some of these things: (e.g., family picnics, visits to relatives):____________________________

____

3. What can a parent do to help a child while he is out of school?

____

____

4. (If some activities are mentioned in previous question No. 3): Have you done any of these in your family? Yes____ No ____

(If Yes): Which have you done?______________________

____

Ask all of the following questions, 5 through 9, unless the respondent has mentioned the activity involved in question 2 or 4 above. If mentioned in 2 or 4, check "yes" for the question.

5. Have you or a group of parents in the community set up any type of activities to teach your children things they would learn in school? Yes ____ No ____

(If Yes): What was this?______________________

____

6. Have you gotten any school books or other books for your children to study? Yes ____ No ____

(If Yes): What ones?______________________

____

7. Have you gotten any other type of teaching materials such as teaching machines, pamphlets, maps, pictures for your children to use? Yes ____ No ____

(If Yes): What materials?______________________

____

8. Have you and/or other parents in the neighborhood arranged to have your children play together? Yes ____ No_____

(If Yes): How often have you done this?__________________

____

(If Yes): Do they ever play school when they get together? Yes ____ No ____

9. Have any of the older children in the family or neighborhood tried to teach the younger ones what they have learned in school? Yes ____ No ____

(If Yes): Has this been done regularly?__________________

Or only once in a while?__________________

10. Have you or other parents in the neighborhood tried to teach your children some things that you probably would not have taught them if they were attending school regularly? Yes ____ No____

(If Yes): What have you tried to teach them?____________

____

(If Yes): How did you do this?____________________

____

Part VI. HOPES FOR THE CHILD

1. How much schooling would you like for your child (mention his name) to have? ______________________________

2. What kind of occupation would you like for him (or her) to enter?

____

3. Are there any kinds of occupations you hope he (or she) will not enter?______________________________

Part VII. FEELINGS ABOUT SCHOOL CLOSING

1. How did you feel when the schools closed in 1959?____________

____

2. In your opinion, who was to blame for the closing?____________

____

3. How concerned do you think most of the whites in the County are that Negro children are not going to school?______________

____

4. How do you think the schools can be opened again?____________

____

APPENDIX D

SELF-CONCEPT OF ABILITY TEST

SELF-CONCEPT OF ABILITY--GENERAL
(FORM A)
Michigan State University
Bureau of Educational Research

__Circle the letter in front of the statement which best answers each question.__

1. How do you rate yourself in school ability compared with your close friends?

   a. I am the best
   b. I am above average
   c. I am average
   d. I am below average
   e. I am the poorest

2. How do you rate yourself in school ability compared with those in your class at school?

   a. I am among the best
   b. I am above average
   c. I am average
   d. I am below average
   e. I am among the poorest

3. Where do you think you would rank in your class in high school?

   a. among the best
   b. above average
   c. average
   d. below average
   e. among the poorest

4. Do you think you have the ability to complete college?

   a. yes, definitely
   b. yes, probably
   c. not sure either way
   d. probably not
   e. no

5. Where do you think you would rank in your class in college?

   a. among the best
   b. above average
   c. average
   d. below average
   e. among the poorest

Copyright, Bureau of Ed. Research
Michigan State University, 1962

6. In order to become a doctor, lawyer, or university professor, work beyond four years of college is necessary. How likely do you think it is that you could complete such advanced work?

   a. very likely
   b. somewhat likely
   c. not sure either way
   d. unlikely
   e. most unlikely

7. Forget for a moment how others grade your work. In your own opinion how good do you think your work is?

   a. my work is excellent
   b. my work is good
   c. my work is average
   d. my work is below average
   e. my work is much below average

8. What kind of grades do you think you are capable of getting?

   a. mostly A's
   b. mostly B's
   c. mostly C's
   d. mostly D's
   e. mostly E's

APPENDIX E

STATISTICAL DATA

Table E.1

Intercorrelations of Age, I.Q., and Subtest Achievement Scores for 124 Students

	Age	Stanford-Binet I.Q.	Paragraph Meaning	Word Meaning	Spelling	Language	Arithmetic Reasoning	Arithmetic Computation
Age		.034	-.143	-.137	.064	.016	-.327	-.332
Stanford-Binet I.Q.			.738	.752	.662	.684	.704	.639
Paragraph Meaning				.842	.719	.781	.766	.719
Word Meaning					.816	.774	.775	.766
Spelling						.743	.641	.664
Language							.748	.749
Arithmetic Reasoning								.839
Arithmetic Computation								

Table E.2

"t" Ratios for Stanford Achievement Tests Subtest Comparisons Between 11- and 17-Year-Old Students In NO EDUCATION, EDUCATION, and OTHER COUNTY Sample

Subtests	No Education	Education	Other County
Paragraph Meaning	-4.20*	-2.95	-6.49*
Word Meaning	-3.54*	-3.17*	-6.63*
Spelling	-2.95	-3.95*	-6.01*
Language			-6.00*
Arithmetic Reasoning	-1.57	-4.23*	-6.27*
Arithmetic Computation	-2.22	-3.22*	-6.96*

* $p < .01$

Table E.3

Means and Standard Deviations of Stanford Achievement Test Subtest Grade Equivalent Scores of Children in 3 Educational Categories

Test	Age	NO EDUCATION		EDUCATION		OTHER COUNTY	
		Mean	S.D.	Mean	S.D.	Mean	S.D.
Paragraph Meaning	11	1.83	1.17	3.23	1.07	4.60	1.44
	12	2.22	1.44	3.06	1.63	4.76	2.14
	13	3.08	1.78	4.82	1.78	5.77	2.35
	14	3.92	1.98	5.57	2.17	5.57	2.01
	15	4.06	1.98	5.60	2.35	6.69	3.26
	16	4.49	2.18	7.91	2.26	8.78	2.67
	17	5.15	2.52	5.38	2.31	9.47	2.76
Word Meaning	11	2.01	1.14	3.59	1.40	4.58	1.29
	12	2.38	1.59	3.28	1.74	4.80	1.73
	13	2.91	1.37	4.56	1.33	5.70	2.06
	14	3.55	1.53	4.66	1.38	5.59	2.14
	15	4.25	2.28	5.44	2.31	6.58	3.00
	16	4.29	1.63	7.09	1.22	8.76	2.40
	17	5.41	3.12	5.78	2.02	9.09	2.45
Spelling	11	1.70	1.17	3.24	0.97	5.32	1.78
	12	2.07	1.29	3.06	1.71	5.38	1.72
	13	2.73	1.22	4.35	1.41	6.51	2.22
	14	3.40	1.54	4.86	1.32	6.77	2.19
	15	4.30	2.29	6.48	2.52	7.09	3.19
	16	4.27	1.50	7.94	2.35	9.86	2.36
	17	4.86	3.48	7.55	3.49	9.62	2.60
Language	11	- --	- --	- --	- --	4.11	2.60
	12	1.10	0.22	2.80	3.04	4.30	2.20
	13	2.16	1.45	4.93	1.95	5.79	3.03
	14	3.28	2.24	5.03	2.15	5.77	3.05
	15	2.94	2.15	5.22	2.39	6.66	3.88
	16	3.75	2.51	7.78	2.39	9.88	2.23
	17	4.61	3.60	6.13	3.69	9.39	3.06
Arithmetic Reasoning	11	2.43	1.20	2.99	0.70	5.08	1.55
	12	2.16	1.18	3.48	1.53	5.05	1.77
	13	2.95	1.14	4.53	1.29	6.04	1.78
	14	3.72	1.59	4.91	1.28	6.42	2.03
	15	4.26	1.72	5.06	1.15	6.92	2.80
	16	4.19	1.62	6.53	1.89	8.89	2.32
	17	3.72	2.62	5.78	2.18	9.66	2.64
Arithmetic Computation	11	2.43	0.81	3.61	0.81	4.79	1.24
	12	2.51	1.26	3.74	1.05	5.19	1.56
	13	2.94	1.12	4.64	0.89	6.23	1.87
	14	3.49	1.37	4.88	1.09	6.72	1.77
	15	4.07	1.44	5.35	1.38	6.66	2.54
	16	4.20	1.36	6.70	2.04	8.79	2.17
	17	4.34	2.82	5.99	2.46	9.59	2.54

Table E.4

Percentage Distribution of Grouped Stanford-Binet Intelligence Quotients

For Prince Edward County Children Classified By

1959-1963 Educational Status